

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project- Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.03.01 INCINERATOR - GENERAL CONDITIONS												
	GEN											
	Mobilization & Demobilization	U.C. per \$	6,380,464.00		0	CN-SKWK	\$0	\$0	\$0	0.006	\$0	0.006
Memo: Mobilization/demobilization costs @ 6% of direct construction \$.												
	GEN											
	CONSTRUCTION EQUIPMENT ALLOWANCE	U.C. per HRS	20,820.00	HRS	0		\$0	\$83,280	\$0	\$0	\$0	\$83,280
Memo: @ \$2.50 LABOR HOUR.												
	GEN											
	SMALL TOOLS & CONSUMABLES	U.C. per \$	2,646,882.00	\$	0		\$0	\$0	\$105,875	\$0	\$0	\$105,875
Memo: @ 4% of construction labor \$.												
	GEN											
	GENERAL CLEANUP	U.C. per HRS	20,820.00	HRS	0.08	\$31.58 CN-LABR	2.526	\$0	\$0	\$0	\$0	2.526
Memo: @ 8% of construction labor hours												
	GEN											
	CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE	U.C. per HRS	20,820.00	HRS	0.05	\$34.52 CN-SKWK	1.726	\$0	\$0	\$0	\$0	1.726
Memo: @ 5% of labor hours.												
Subtotal							\$188,471	\$83,280	\$105,875	\$38,283	\$0	\$415,909
Sales Tax							\$0	\$0	\$6,353	\$0	\$0	\$6,353
INEEL/Subcontractor Overheads							\$54,713	\$24,176	\$32,580	\$11,113	\$0	\$122,583
Subtotal Estimate												\$544,844
Escalation							\$32,489	\$14,356	\$19,346	\$6,599	\$0	\$72,791
Contingency							\$136,026	\$60,106	\$80,999	\$27,630	\$0	\$304,762
--Total 4.2.03.01 INCINERATOR - GENERAL CONDITIONS					5,205		\$411,700	\$181,919	\$245,153	\$83,626	\$0	\$922,397

4.2.03.02 INCINERATOR - SITEWORK

	DIRT	U.C. per CY										
	FOUNDATION EXCAVATION		2,964.00	CY	0		\$0	\$0	\$0	3.51	\$0	3.51
	DIRT	U.C. per CY										
	FOUNDATION BACKFILL & COMPACT		2,779.00	CY	0		\$0	\$0	\$0	13.87	\$0	13.87

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Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.03.02INCINERATOR - SITEWORK												
	DIRT	<i>U.C. per CY</i>					0	0	0	1.8	0	1.8
	SPREADEXCESSEXCAVATEDMATERIAL		185.00	CY	0		\$0	\$0	\$0	\$333	\$0	\$333
Subtotal							\$0	\$0	\$0	\$49,281	\$0	\$49,281
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractor Overheads							\$0	\$0	\$0	\$20,665	\$0	\$20,665
Subtotal Estimate												\$69,947
Escalation							\$0	\$0	\$0	\$9,345	\$0	\$9,345
Contingency							\$0	\$0	\$0	\$39,125	\$0	\$39,125
--Total 4.2.03.02INCINERATOR - SITEWORK					0		\$0	\$0	\$0	\$118,416	\$0	\$118,416

4.2.03.03INCINERATOR - CONCRETE

FOUNDATIONWALLS	GEN	<i>U.C. per CY</i>	93.00	CY	0		0	0	0	430	0	430
							\$0	\$0	\$0	\$39,990	\$0	\$39,990
COLUMN FOOTINGS	GEN	<i>U.C. per CY</i>	92.00	CY	0		0	0	0	430	0	430
							\$0	\$0	\$0	\$39,560	\$0	\$39,560
FLOORS	GEN	<i>U.C. per CY</i>	342.00	CY	0		0	0	0	430	0	430
							\$0	\$0	\$0	\$147,060	\$0	\$147,060

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<u>4.2.03.03 INCINERATOR - CONCRETE</u>												
	MISC. PADS & EQUIP. FOUNDATIONS	GEN U.C. per CY	60.00	CY	0		\$0	\$0	\$0	\$25,800	\$0	\$25,800
Subtotal							\$0	\$0	\$0	\$252,410	\$0	\$252,410
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractor Overheads							\$0	\$0	\$0	\$73,275	\$0	\$73,275
Subtotal Estimate												\$325,685
Escalation							\$0	\$0	\$0	\$43,511	\$0	\$43,511
Contingency							\$0	\$0	\$0	\$182,174	\$0	\$182,174
— Total 4.2.03.03 INCINERATOR - CONCRETE					0		\$0	\$0	\$0	\$551,370	\$0	\$551,370
<u>4.2.03.05 INCINERATOR - METALS</u>												
	STRUCTURAL STEEL	STEEL U.C. per TONS	111.00	TONS	1,132	102 STEEL1	\$48,360	\$26,814	\$185,140	\$0	\$0	\$260,322
	ROOF DECK	STEEL U.C. per SF	13,820.00	SF	168	0.012 STEEL1	\$7,172	\$3,977	\$37,079	\$0	\$0	\$48,228
Subtotal							\$55,532	\$30,791	\$222,227	\$0	\$0	\$308,550
Sales Tax							\$0	\$0	\$13,334	\$0	\$0	\$13,334
INEEUSubcontractor Overheads							\$23,286	\$12,912	\$98,778	\$0	\$0	\$134,976
Subtotal Estimate												\$456,859
Escalation							\$10,530	\$5,839	\$44,668	\$0	\$0	\$61,036
Contingency							\$44,088	\$24,445	\$187,014	\$0	\$0	\$255,547
— Total 4.2.03.05 INCINERATOR - METALS					1,300		\$133,436	\$73,987	\$566,020	\$0	\$0	\$773,443
<u>4.2.03.07 INCINERATOR - THERMAL & MOISTURE PROTECTION</u>												
	ROOF INSULATION	ROOF U.C. per SF	13,820.00	SF	0		\$0	\$0	\$0	\$0	\$26,691	\$26,691

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<u>4.2.03.07 INCINERATOR -THERMAL & MOISTURE PROTECTION</u>												
	ROOFING	ROOF										
		<i>U.C. per SF</i>	13,820.00	SF	0		\$0	\$0	\$0	\$0	2.938	2.938
											\$40,596	\$40,596
	SANDWICH WALL PANELS	STEEL										
		<i>U.C. per SF</i>	40,750.00	SF	0.068	\$42.71	2.883	1.599	13.94	0	0	18.422
					2,751	STEEL1	\$117,488	\$65,144	\$568,055	\$0	\$0	\$750,687
Subtotal							\$117,488	\$65,144	\$568,055	\$0	\$67,287	\$817,974
Sales Tax							\$0	\$0	\$34,083	\$0	\$0	\$34,083
INEEL/Subcontractor Overheads							\$49,266	\$27,317	\$252,495	\$0	\$0	\$329,078
Subtotal Estimate												\$1,181,135
Escalation							\$22,278	\$12,353	\$114,179	\$0	\$8,990	\$157,800
Contingency							\$93,275	\$51,718	\$478,044	\$0	\$37,637	\$660,675
—Total 4.2.03.07 INCINERATOR-THERMAL & MOISTURE PROTECTION					2,751		\$282,308	\$156,532	\$1,446,856	\$0	\$113,914	\$1,999,610

4.2.03.08 INCINERATOR -DOORS & WINDOWS

	PERSONNEL DOORS3'X7'	GEN										
		<i>U.C. per EA</i>	8.00	EA	6.885	\$35.81	246.551	0	903.89	0	0	1150.44
					55	CN-CARP	\$1,972	\$0	\$7,231	\$0	\$0	\$9,204
	PERSONNEL DOORS6'X7'	GEN										
		<i>U.C. per EA</i>	3.00	EA	14.58	\$35.81	522.11	0	2089.37	0	0	261.148
					44	CN-CARP	\$1,566	\$0	\$6,268	\$0	\$0	\$7,834

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4.2.03.08 INCINERATOR-DOORS & WINDOWS												
	12'X12' OH DOOR W/ OPERATOR	GEN U.C. per EA	6.00	EA	0		0 \$0	0 \$0	0 \$0	4014.75 \$24,089	0 \$0	4014.75 \$24,089
Subtotal							\$3,539	\$0	\$13,499	\$24,089	\$0	\$41,126
Sales Tax							\$0	\$0	\$810	\$0	\$0	\$810
INEEU Subcontractor Overheads							\$1,027	\$0	\$4,154	\$6,993	\$0	\$12,174
Subtotal Estimate												\$54,111
Escalation							\$610	\$0	\$2,467	\$4,152	\$0	\$7,229
Contingency							\$2,554	\$0	\$10,327	\$17,386	\$0	\$30,267
—Total 4.2.03.08 INCINERATOR - DOORS & WINDOWS					99		\$7,730	\$0	\$31,257	\$52,619	\$0	\$91,607
4.2.03.09 INCINERATOR - FINISHES												
	EPOXY FLOOR COATING	PAINT U.C. per SF	13,820.00	SF	0.108 1,493	\$38.00 CN-PNTS	4.104 \$56,717	0 \$0	1.07 \$14,787	0 \$0	0 \$0	5.174 \$71,505
Subtotal							\$56,717	\$0	\$14,787	\$0	\$0	\$71,505
Sales Tax							\$0	\$0	\$887	\$0	\$0	\$887
INEEL/Subcontractor Overheads							\$23,783	\$0	\$6,573	\$0	\$0	\$30,356
Subtotal Estimate												\$102,748
Escalation							\$10,755	\$0	\$2,972	\$0	\$0	\$13,727
Contingency							\$45,028	\$0	\$12,444	\$0	\$0	\$57,473
—Total 4.2.03.09 INCINERATOR - FINISHES					1,493		\$136,284	\$0	\$37,664	\$0	\$0	\$173,948
4.2.03.11 INCINERATOR - EQUIPMENT-INSTALL GFE												
Memo: From "Plant Design and Economics for Chemical Engineers," the average <i>installation</i> costs are about 25% of purchase price. Due to the very specialized nature of some of these systems (and the very high system purchase prices), assume installation will be one-half the average or 12.5% of purchase price. This factor will only apply to the <i>non-HVAC</i> and <i>non-I&C</i> equipment. HVAC and I&C equipment installation will be detailed separately.												
	EQUIPMENT INSTALLATION	U.C. per \$	5,807,812.00	\$	0		0.125 \$725,977	0 \$0	0 \$0	0 \$0	0 \$0	0.125 \$725,977

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4.2.03.11 INCINERATOR - EQUIPMENT-INSTALL GFE												
<i>Memo: From "Plant Design and Economics for Chemical Engineers," the average installation costs are about 25% of purchase price. Due to the very specialized nature of some of these systems (and the very high system purchase prices), assume installation will be one-half the average or 12.5% of purchase price. This factor will only apply to the non-HVAC and non-I&C equipment. HVAC and I&C equipment installation will be detailed separately.</i>												
	Subtotal						\$725,977	\$0	\$0	\$0	\$0	\$725,977
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$725,977
	Escalation						\$96,990	\$0	\$0	\$0	\$0	\$96,990
	Contingency						\$406,079	\$0	\$0	\$0	\$0	\$406,079
— Total 4.2.03.11 INCINERATOR - EQUIPMENT-INSTALL GFE					0		\$1,229,046	\$0	\$0	\$0	\$0	\$1,229,046

4.2.03.15.01.01 INCINERATOR - INSTALL HVAC EQUIPMENT & DUCTWORK

HVAC	U.C. per LBS		0.2	\$36.82	7.364	0.3	2	0	0	9.664
STAINLESS STEEL DUCTWORK (based on 3 lbs/sf)		41,460.00 LBS	8,292	CN-SHEE	\$305,311	\$12,438	\$82,920	\$0	\$0	\$400,669
HVAC	U.C. per LBS		0.08	\$36.82	2.946	0.3	0.75	0	0	3.996
GALVANIZED STEEL DUCTWORK (based on 3 lbs/sf)		41,460.00 LBS	3,317	CN-SHEE	\$122,125	\$12,438	\$31,095	\$0	\$0	\$165,658
HVAC	U.C. per EA		24	\$36.82	883.68	0	0	0	0	883.68
HEPA filter (1H X 1W HEPA HOUSING)		1.00 EA	24	CN-SHEE	\$884	\$0	\$0	\$0	\$0	\$884
HVAC	U.C. per EA		120	\$36.82	4418.4	0	0	0	0	4418.4
HEPA filter (4H X 4W HEPA HOUSING)		7.00 EA	840	CN-SHEE	\$30,929	\$0	\$0	\$0	\$0	\$30,929
HVAC	U.C. per EA		24	\$36.82	883.68	0	0	0	0	883.68
HEPA filter (1H X 1W HEPA HOUSING)		5.00 EA	120	CN-SHEE	\$4,418	\$0	\$0	\$0	\$0	\$4,418
HVAC	U.C. per EA		8	\$36.82	294.56	0	0	0	0	294.56
Exhaust Fan 300 CFM		1.00 EA	8	CN-SHEE	\$295	\$0	\$0	\$0	\$0	\$295
HVAC	U.C. per EA		8	\$36.82	294.56	0	0	0	0	294.56
Exhaust Fan 300 CFM		1.00 EA	8	CN-SHEE	\$295	\$0	\$0	\$0	\$0	\$295

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<u>4.2.03.15.01.01 INCINERATOR- INSTALL HVAC EQUIPMENT & DUCTWORK</u>												
	Exhaust Fan 300 CFM	HVAC			8	\$36.82	294.56	0	0	0	0	294.56
			1.00	EA	8	CN-SHEE	\$295	\$0	\$0	\$0	\$0	\$295
	Exhaust Fan 55,000 CFM	HVAC			110	\$36.82	4050.2	0	0	0	0	4050.2
			1.00	EA	110	CN-SHEE	\$4,050	\$0	\$0	\$0	\$0	\$4,050
	Exhaust Fan 55,000 CFM	HVAC			110	\$36.82	4050.2	0	0	0	0	4050.2
			1.00	EA	110	CN-SHEE	\$4,050	\$0	\$0	\$0	\$0	\$4,050
	Exhaust Fan 55,000 CFM	HVAC			110	\$36.82	4050.2	0	0	0	0	4050.2
			1.00	EA	110	CN-SHEE	\$4,050	\$0	\$0	\$0	\$0	\$4,050
	Exhaust Fan 2,100 CFM	HVAC			20	\$36.82	736.4	0	0	0	0	736.4
			1.00	EA	20	CN-SHEE	\$736	\$0	\$0	\$0	\$0	\$736
	Exhaust Fan 2,100 CFM	HVAC			20	\$36.82	736.4	0	0	0	0	736.4
			1.00	EA	20	CN-SHEE	\$736	\$0	\$0	\$0	\$0	\$736
	Exhaust Fan 2,100 CFM	HVAC			20	\$36.82	736.4	0	0	0	0	736.4
			1.00	EA	20	CN-SHEE	\$736	\$0	\$0	\$0	\$0	\$736
	Air Handling Unit 55,000 CFM	HVAC			108	\$36.82	3976.56	0	0	0	0	3976.56
			1.00	EA	108	CN-SHEE	\$3,977	\$0	\$0	\$0	\$0	\$3,977
	Air Handling Unit 55,000 CFM	HVAC			108	\$36.82	3976.56	0	0	0	0	3976.56
			1.00	EA	108	CN-SHEE	\$3,977	\$0	\$0	\$0	\$0	\$3,977
	Air Handling Unit 55,000 CFM	HVAC			108	\$36.82	3976.56	0	0	0	0	3976.56
			1.00	EA	108	CN-SHEE	\$3,977	\$0	\$0	\$0	\$0	\$3,977
	Air Handling Unit 2,100 CFM	HVAC			26	\$36.82	957.32	0	0	0	0	957.32
			1.00	EA	26	CN-SHEE	\$957	\$0	\$0	\$0	\$0	\$957
	Air Handling Unit 2,100 CFM	HVAC			26	\$36.82	957.32	0	0	0	0	957.32
			1.00	EA	26	CN-SHEE	\$957	\$0	\$0	\$0	\$0	\$957
	Air Handling Unit 2,100 CFM	HVAC			26	\$36.82	957.32	0	0	0	0	957.32
			1.00	EA	26	CN-SHEE	\$957	\$0	\$0	\$0	\$0	\$957

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4.2.03.15.01.01 INCINERATOR - INSTALL HVAC EQUIPMENT & DUCTWORK												
	Heater (115,000BTU)	HVAC	<i>U.C. per EA</i>	1.00 EA	8	\$36.82	294.56	0	0	0	0	294.56
					a	CN-SHEE	\$295	\$0	\$0	\$0	\$0	\$295
	Heater (115,000BTU)	HVAC	<i>U.C. per EA</i>	1.00 EA	8	\$36.82	294.56	0	0	0	0	294.56
					a	CN-SHEE	\$295	\$0	\$0	\$0	\$0	\$295
	Heater (115,000BTU)	HVAC	<i>U.C. per EA</i>	1.00 EA	8	\$36.82	294.56	0	0	0	0	294.56
					a	CN-SHEE	\$295	\$0	\$0	\$0	\$0	\$295
	Heater (115,000BTU)	HVAC	<i>U.C. per EA</i>	1.00 EA	8	\$36.82	294.56	0	0	0	0	294.56
					a	CN-SHEE	\$295	\$0	\$0	\$0	\$0	\$295
	Heater (115,000BTU)	HVAC	<i>U.C. per EA</i>	1.00 EA	8	\$36.82	294.56	0	0	0	0	294.56
					a	CN-SHEE	\$295	\$0	\$0	\$0	\$0	\$295
Subtotal							5495,479	\$24,876	\$114,015	\$0	\$0	\$634,370
Sales Tax							\$0	\$0	\$6,841	\$0	\$0	\$6,841
INEEUSubcontractorOverheads							45.64%	\$226,115	\$11,352	\$55,153	\$0	\$292,621
Subtotal Estimate												\$933,832
Escalation							\$96,405	\$4,840	\$23,515	\$0	\$0	\$124,760
Contingency							\$403,628	\$20,265	\$98,452	\$0	\$0	\$522,344
—Total 4.2.03.15.01.01 INCINERATOR - INSTALL HVAC EQUIPMENT & DUCTWORK					13,457		\$1,221,628	\$61,333	\$297,976	\$0	\$0	\$1,580,936

4.2.03.15.01.02 INCINERATOR - EXHAUST STACK

	EXHAUST STACK 40" X 65 FT HIGH (CS) INCLUDING BASE	<i>U C per LBS</i>	41,39300 LBS	0	0	0	394	0	394
				\$0	\$0	\$0	\$163,088	\$0	\$163,088

Memo Costs are based on the exhaust stack built and installed for the GEM project. but sized accordingly to support this Stage III project Assume the stack base to be 105" in dia and a 40" dia for the main stack section x 65 ft high, all fabricated from carbon steel materials Estimated weight including base to be around 41,393lbs

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage 111 Project - Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEY**
 Estimate Type: **Project Support**

Code	Description	Contractor	Qty	UOM	Hrs	Resource	Labor	Equipment	Material	Subcontractor	Other	TOTAL
<u>4.2.03.15.01.02 INCINERATOR - EXHAUST STACK</u>												
	INSTALLATION OF EXHAUST STACK		41,393.00	LBS	0		\$0	\$0	\$0	2.3	\$95,204	\$95,204
Memo: Stack installation costs are based on the GEM project, and increased accordingly to the new stack ROM design dimensions. Estimated weight, including base 41,393 lbs												
	Subtotal						\$0	\$0	\$0	\$258,292	\$0	\$258,292
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate						\$0	\$0	\$0	\$34,508	\$0	\$34,508
	Escalation						\$0	\$0	\$0	\$144,477	\$0	\$144,477
<hr/>												
---	Total 4.2.03.15.01.02 INCINERATOR - EXHAUST STACK				0		\$0	\$0	\$0	\$437,270	\$0	\$437,270

4.2.03.1 5.01.03 INCINERATOR - EMISSIONS NOC MONITORING

Memo: Based on the GEM project design and cost. Assume the GEM project system will be sufficient, not cost adjustment needed for larger stack.

	EXHAUST STACK MONITORING EQUIPMENT		1.00	EA	0		\$0	\$0	\$160,000	\$0	\$0	\$160,000
	INSTALLATION OF MONITORING EQUIPMENT		1.00	LS	0		\$0	\$0	\$0	\$9,000	\$0	\$9,000
	VOC MONITORING EQUIPMENT		1.00	LS	0		\$0	\$0	\$0	\$100,000	\$0	\$100,000
Memo: Cost are based on an allowance provided by Ryan McMurtrey, Ryan has experience in this type of system on other projects of this nature.												
	Subtotal						\$0	\$0	\$160,000	\$109,000	\$0	\$269,000
	Sales Tax						\$0	\$0	\$9,600	\$0	\$0	\$9,600
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate						\$0	\$0	\$22,659	\$14,562	\$0	\$37,221
	Escalation						\$0	\$0	\$94,867	\$60,970	\$0	\$155,037
<hr/>												
---	Total 4.2.03.1 5.01.03 INCINERATOR - EMISSIONS NOC MONITORING				0		\$0	\$0	\$207,125	\$104,532	\$0	\$471,650

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project - Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.03.15.02 INCINERATOR - FIRE PROTECTION												
<i>Memo: Costs are based on contacting a local fire protection vendor that has provided many hours of time as a consultant for the INEEL. This company has also design and installed many fire protection systems at the INEEL, as well as the GEM project. Fire system control costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility.</i>												
	INCINERATOR BLDG- FIRE SYSTEM CONTROLS	<i>U.C. per SF</i>	13,820.00	SF	0		0	0	0	3.4	0	3.4
							\$0	\$0	\$0	\$46,988	\$0	\$46,988
	INCINERATOR BLDG-DRY PIPE FIRE PROTECTION	<i>U.C. per SF</i>	13,820.00	SF	0	CN-SPRI	0	0	0	3.65	0	3.65
							\$0	\$0	\$0	\$50,443	\$0	\$50,443
	INCINERATOR BLDG-DRY PIPE FIRE PROTECTION (SECONDARY COVERAGE UNDER EQUIPMENT)	<i>U.C. per SF</i>	13,820.00	SF	0	CN-SPRI	0	0	0	3.65	0	3.65
							\$0	\$0	\$0	\$50,443	\$0	\$50,443
	INCINERATOR BLDG- FEED MAINS	<i>U.C. per LF</i>	500.00	LF	0	CN-SPRI	0	0	0	65.3	0	65.3
							\$0	\$0	\$0	\$32,650	\$0	\$32,650
	INCINERATOR-EXTRAHAZARD FOAM SYSTEM (EQUIPMENT ONLY)	<i>U.C. per LS</i>	1.00	LS	0		0	0	0	100000	0	100000
							\$0	\$0	\$0	\$100,000	\$0	\$100,000
	INCINERATOR BLDG-EXTRA HAZARD FOAM PIPING DISTRIBUTION SYSTEM	<i>U.C. per SF</i>	13,820.00	SF	0		0	0	0	4.35	0	4.35
							\$0	\$0	\$0	\$60,117	\$0	\$60,117
	INCINERATOR BLDG-EXTRA HAZARD FOAM MONITOR NOZZLES	<i>U.C. per EA</i>	4.00	EA	0		0	0	0	10000	0	10000
							\$0	\$0	\$0	\$40,000	\$0	\$40,000

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project - Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS B. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.03.15.04	INCINERATOR - BREATHING AIR											
Memo: Costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility. No costs for the breathing air compressor have been included, assume provided to the project by the BBWI equipment pool at no cost to this project.												
	INCINERATOR BLDG-BREATHING AIR DIST. SYSTEM		13,820.00	SF	0		\$0	\$0	\$0	11.2 \$154,784	0 \$0	11.2 \$154,784
	Subtotal						\$0	\$0	\$0	\$154,784	\$0	\$154,784
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate						\$0	\$0	\$0	\$20,679	\$0	\$154,704
	Escalation						\$0	\$0	\$0	\$86,579	\$0	\$20,679
	Contingency						\$0	\$0	\$0	\$0	\$0	\$86,579
—Total	4.2.03.15.04	INCINERATOR - BREATHING AIR			0		\$0	\$0	\$0	\$262,043	\$0	\$262,043

4.2.03.15.05 INCINERATOR - PROCESS PIPING

Memo: Allowance is based on previous detail take-off process piping system.

	PIPE				0.182	\$39.33	7.158	0	32.7	0	0	39.858
	PROCESS PIPING ALLOWANCE		9,460.00	SF	1,722	CN-PIPE	\$67,715	\$0	\$309,342	\$0	\$0	\$377,057
	Subtotal						\$67,715	\$0	\$309,342	\$0	\$0	\$377,057
	Sales Tax						\$0	\$0	\$18,561	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	48.10%					\$32,574	\$0	\$157,734	\$0	\$0	\$198,308
	Subtotal Estimate						\$13,399	\$0	\$64,881	\$0	\$0	\$585,926
	Escalation						\$56,097	\$0	\$271,644	\$0	\$0	\$78,280
	Contingency						\$0	\$0	\$0	\$0	\$0	5327,741
—Total	4.2.03.15.05	INCINERATOR - PROCESS PIPING			1,722		\$169,705	\$0	\$022,162	\$0	\$0	\$991,947

4.2.03.16.01 INCINERATOR - GENERAL FACILITIES ELECTRICAL

Memo: Costs are based on the GEM project calculated square footage.

	FACILITY RACEWAYS		13,820.00	SF	0		\$0	\$0	0 \$0	77 \$234,940	0 \$0	17 \$234,940
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DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project - Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.03.16.01 INCINERATOR - GENERAL FACILITIES ELECTRICAL												
Memo: Costs are based on the GEM project calculated square footage.												
	FACILITY WIRE & CABLE	<i>U.C. per SF</i>	13,820.00 SF		0		\$0	\$0	\$0	6.36 \$87,895	0 \$0	6.36 \$87,895
	FACILITY LIGHTING	<i>U.C. per SF</i>	13,820.00 SF		0		\$0	\$0	\$0	8.75 \$120,925	0 \$0	8.75 \$120,925
	FACILITY MISC. (TELEPHONE, LIGHTNING PROTECTION, ETC.)	<i>U.C. per SF</i>	13,820.00 SF		0		\$0	\$0	\$0	5.45 \$75,319	0 \$0	5.45 \$75,319
Subtotal							\$0	\$0	\$0	\$519,079	\$0	\$519,079
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractorOverheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$519,079
Escalation							\$0	\$0	\$0	\$69,349	\$0	\$69,349
Continoency							\$0	\$0	\$0	\$290,350	\$0	\$290,350
--- Total	4.2.03.16.01 INCINERATOR - GENERAL FACILITIES ELECTRICAL				0		\$0	\$0	\$0	\$878,778	\$0	\$1,070,778

4.2.03.16.02 INCINERATOR - MONITORING AND CONTROLS

Memo: Installation, raceways, and cabling @ 50% of I&C procurement cost.

I&C INSTALLATION, RACEWAYS, & CABLE	<i>U.C. per LS</i>	1.00 LS	0		\$0	\$0	\$0	137475 \$137,475	0 \$0	137475 \$137,475
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DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project - Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEV**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.03.16.03 INCINERATOR - MONITORING AND CONTROLS												
<i>Memo: Installation, raceways, and cabling @ 50% of I&C procurement cost.</i>												
	Subtotal							\$0	\$0	\$0	\$137,475	\$137,475
	Sales Tax							\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads	0.00%						\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate							\$0	\$0	\$18,367	\$0	\$18,367
	Escalation							\$0	\$0	\$76,897	\$0	\$76,897
	Continaency							\$0	\$0	\$0	\$0	\$0
--Total 4.2.03.16.03 INCINERATOR - MONITORING AND CONTROLS						0		\$0	\$0	\$0	\$232,739	\$232,739
4.2.03.16.04 INCINERATOR - CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION												
	CRITICALITY SYSTEM INSTALLATION	U.C. per EA	3.00	EA	0			0	0	0	20185	20185
								\$0	\$0	\$0	\$60,555	\$60,555
<i>Memo: Based on the GEM project installation costs for criticality equipment.</i>												
	RADIOLOGICAL MONITORING EQUIPMENT INSTALLATION	U.C. per LS	1.00	LS	0			0	0	0	16349	16349
								\$0	\$0	\$0	\$16,349	\$16,349
	Subtotal							\$0	\$0	\$76,904	\$0	\$76,904
	Sales Tax							\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%						\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate							\$0	\$0	\$10,274	\$0	\$10,274
	Escalation							\$0	\$0	\$43,017	\$0	\$43,017
	Continoency							\$0	\$0	\$0	\$0	\$0
--Total 4.2.03.16.04 INCINERATOR - CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION						0		\$0	\$0	\$0	\$130,195	\$130,195

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged interim Action**
Stage III Project- Compact AN with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
Prepared By: **R. D. ADAMS/S. N. WASLEY**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>EquipDment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Memo:	<i>Costs are based on the GEM project calculated square footage.</i>											
	CCTV MONITORING SYSTEM-INSTALLATIONLABOR		13,820.00	SF	0		\$0	\$0	\$0	1.36	\$0	1.36
Memo:	Unit costs are based on the GEM project. Camera equipment costs are included in the procurement WBS											
Subtotal							\$0	\$0	\$0	\$18,795	\$0	\$18,795
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractor Overheads		0.00%					\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate							\$0	\$0	\$0	\$2,511	\$0	\$2,511
Escalation							\$0	\$0	\$0	\$10,513	\$0	\$10,513
Contingency							\$0	\$0	\$0	\$0	\$0	\$0
--- Total	4.2.03.16.05 INCINERATOR - CCTV MONITORING SYSTEM				0		\$0	\$0	\$0	531,819	\$0	531,819

4.2.06.01 AIRLOCK - GENERAL CONDITIONS

	GEN	U.C. per HRS		0.12	\$40.00	4.8	0	0	0	0	4.8
SUPERVISION			25,272.00	HRS	3,033	CN-SUPR	\$121,306	\$0	\$0	\$0	\$121,306
Memo:	@ 12% of labor hrs.										
	GEN	U.C. per \$					0	0	0	0.006	0.006
Mobilization& Demobilization			2,060,547.00	\$	0	CN-SKWK	\$0	\$0	\$0	\$12,363	\$12,363
Memo:	Mobilization/demobilization costs @ .6% of direct construction\$.										
	GEN	U.C. per HRS					0	4	0	0	4
CONSTRUCTION EQUIPMENT ALLOWANCE			25,272.00	HRS	0		\$0	\$101,088	\$0	\$0	\$101,088
Memo:	@ \$2.50/LABOR HOUR.										
	GEN	U.C. per \$					0	0	0.04	0	0.04
SMALL TOOLS & CONSUMABLES			1,027,484.00	\$	0		\$0	\$0	\$41,099	\$0	\$41,099
Memo:	@ 4% of construction labor \$										
	GEN	U.C. per HRS			0.08	\$31.58	2.526	0	0	0	2.526
GENERAL CLEANUP			25,272.00	HRS	2,022	CN-LABR	\$63,847	\$0	\$0	\$0	\$63,847
Memo:	@ 8% of construction labor hours										

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project - Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS B. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.06.01 AIRLOCK - GENERAL CONDITIONS												
	GEN	U.C. per HRS			0.05	\$34.52	1.726	0	0	0	0	1.726
	CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE		25,272.00	HRS	1,264	CN-SKWK	\$43,619	\$0	\$0	\$0	\$0	\$43,619
Memo: @ 5% of labor hours.												
	GEN	U.C. per Wk			80	\$34.20	2736	7250	0	0	0	3986
	Craning Allowance - W/ Operator & Oiler		26.00	Wk	2,080	CN-ENGR	\$71,136	\$32,500	\$0	\$0	\$0	\$103,636
<hr/>												
	Subtotal						\$299,908	\$133,588	\$41,099	\$12,363	\$0	\$486,959
	Sales Tax						\$0	\$0	\$2,466	\$0	\$0	\$2,466
	INEEUSubcontractorOverheads	29.03%					\$87,063	\$38,781	\$12,647	\$3,589	\$0	\$142,080
<hr/>												
	Subtotal Estimate											\$631,505
	Escalation						\$51,699	\$23,028	\$7,510	\$2,131	\$0	\$84,369
	Contingency						\$216,455	\$96,415	\$31,443	\$8,923	\$0	\$353,236
<hr/>												
—Total	4.2.06.01 AIRLOCK - GENERAL CONDITIONS				0,390		\$655,126	\$291,012	\$95,165	\$27,007	\$0	\$1,069,110

4.2.06.02 AIRLOCK - SITEWORK

	DIRT	U.C. per SF					0	0	0	4	0	4
	SF COST FROM RETRIEVAL PORTION		3,860.00	SF	0		\$0	\$0	\$0	\$15,440	\$0	\$15,440
<hr/>												
	Subtotal						\$0	\$0	\$0	\$15,440	\$0	\$15,440
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads	41.93%					\$0	\$0	\$0	\$6,474	\$0	\$6,474
<hr/>												
	Subtotal Estimate											\$21,914
	Escalation						\$0	\$0	\$0	\$2,928	\$0	\$2,928
	Contingency						\$0	\$0	\$0	\$12,258	\$0	\$12,258
<hr/>												
—Total	4.2.06.02 AIRLOCK - SITEWORK				0		\$0	\$0	\$0	\$37,100	\$0	\$37,100

4.2.06.03 AIRLOCK - CONCRETE

	GEN	U.C. per SF					0	0	0	16.28	0	16.28
	SF COST FROM RETRIEVAL PORTION		3,860.00	SF	0		\$0	\$0	\$0	\$62,841	\$0	\$62,841

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project - Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS B. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.06.03AIRLOCK - CONCRETE												
	Subtotal						\$0	\$0	\$0	\$62,841	\$0	\$62,841
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractor Overheads	29.03%					\$0	\$0	\$0	\$1 8,243	\$0	\$18,243
	Subtotal Estimate											\$81,083
	Escalation						\$0	\$0	\$0	\$10,833	\$0	\$10,833
	Contingency						\$0	\$0	\$0	\$45,355	\$0	\$45,355
— Total	4.2.06.03AIRLOCK - CONCRETE				0		\$0	\$0	\$0	\$1 37,271	\$0	\$137,271
4.2.06.05AIRLOCK - METALS												
	STEEL	U.C.per SF			2	\$43.62	87.24	5.538	21	0	0	113.778
	SF COST FROM RETRIEVAL PORTION		3,860.00	SF	7,720	E4	\$336,746	\$21,375	\$81,060	\$0	\$0	\$439,181
	Subtotal						\$336,746	\$21,375	\$81,060	\$0	\$0	\$439,181
	Sales Tax						\$0	\$0	\$4,864	\$0	\$0	\$4,864
	INEEUSubcontractor Overheads	41.93%					\$141,208	\$8,963	\$36,030	\$0	\$0	\$1 86,201
	Subtotal Estimate											\$630,246
	Escalation						\$63,855	\$4,053	\$16,293	\$0	\$0	\$84,201
	Contingency						\$267,347	\$16,970	\$68,216	\$0	\$0	\$352,532
— Total	4.2.06.05AIRLOCK - METALS				7,720		\$809,156	\$51,361	\$206,463	\$0	\$0	\$1,066,979
4.2.06.09AIRLOCK - FINISHES												
	SF COST FROM RETRIEVAL PORTION	U.C.per SF	3,860.00	SF	0		\$0	\$0	\$0	\$13,510	\$0	\$13,510

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project- Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Eaument</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.06.09 AIRLOCK - FINISHES</u>												
	Subtotal						\$0	\$0	\$0	\$13,510	\$0	\$13,510
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$13,510
	Escalation						\$0	\$0	\$0	\$1,805	\$0	\$1,805
	Contingency						\$0	\$0	\$0	\$7,557	\$0	\$7,557
—Total 4.2.06.09 AIRLOCK • FINISHES					0		\$0	\$0	\$0	\$22,872	\$0	\$22,872

4.2.06.13 AIRLOCK - SPECIAL CONSTRUCTION

		<i>U.C. per SF</i>					0	0	30	12.6	0	42.6
	ERECT-AIRLOCK CHARACTERIZATION STRUCTURE- FRAME, FABRIC		3,860.00	SF	0		\$0	\$0	\$115,800	\$48,636	\$0	\$164,436
		<i>U.C. per SF</i>					0	0	0	140.97	0	140.97
	ERECT- PERSONNEL AIRLOCK STRUCTURE		3,860.00	SF	0		\$0	\$0	\$0	\$544,144	\$0	\$544,144
	Subtotal						\$0	\$0	\$115,800	\$592,780	\$0	\$708,580
	Sales Tax						\$0	\$0	\$6,948	\$0	\$0	\$6,948
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$715,528
	Escalation						\$0	\$0	\$16,399	\$79,195	\$0	\$95,595
	Contingency						\$0	\$0	\$68,660	\$331,575	\$0	\$400,235
—Total 4.2.06.13 AIRLOCK • SPECIAL CONSTRUCTION					0		\$0	\$0	\$207,807	\$1,003,551	\$0	\$1,211,358

4.2.06.15.01 AIRLOCK • HVAC

	HVAC	<i>U.C. per LBS</i>			0.2	\$36.82	7.364	0.3	2	0	0	9.664
	STAINLESSSTEEL DUCTWORK (based on 3 lbs/sf)		12,750.00	LBS	2,550	CN-SHEE	\$93,891	\$3.825	\$25,500	\$0	\$0	\$123,216

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project - Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS B. N. WASLEY**
 Estimate Type: **Project Support**

Code	Description	Contractor	Qty	UOM	Hrs	Resource	Labor	Equipment	Material	Subcontractor	Other	TOTAL
4.2.06.15.01 AIRLOCK - HVAC												
	HVAC	U.C. per LBS			0.08	\$36.82	2,946	0.3	0.75	0	0	3.996
	GALVANIZED STEEL DUCTWORK (based on 3 lbs/sf)		12,750.00	LBS	1,020	CN-SHEE	\$37,556	\$3,825	\$9,563	\$0	\$0	\$50,944
<hr/>												
	Subtotal						\$131,447	\$7,650	\$35,063	\$0	\$0	\$174,160
	Sales Tax						\$0	\$0	\$2,104	\$0	\$0	\$2,104
	INEEU Subcontractor Overheads	45.64%					\$59,987	\$3,491	\$16,961	\$0	\$0	\$80,439
<hr/>												
	Subtotal Estimate											\$256,703
	Escalation						\$25,576	\$1,488	\$7,231	\$0	\$0	\$34,295
	Contingency						\$107,080	\$6,232	\$30,276	\$0	\$0	\$143,588
<hr/>												
— Total	4.2.06.15.01	AIRLOCK - HVAC			3,570		\$324,090	\$18,861	\$91,635	\$0	\$0	\$434,586

4.2.06.15.02 AIRLOCK - FIRE PROTECTION

Memo: Costs are based on contacting a local fire protection vendor that has provided many hours of time as a consultant for the INEEL. This company has also design and installed many fire Protection systems at the INEEL, as well as the GEM project. Fire system control costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility.

		U.C. per SF					0	0	0	3.4	0	3.4
	AIRLOCK TO CHARACTERIZATION STRUCTURE FIRE SYSTEM CONTROLS		4,250.00	SF	0		\$0	\$0	\$0	\$14,450	\$0	\$14,450
<hr/>												
	FP	U.C. per SF					0	0	0	3.65	0	3.65
	CHARACTERIZATION AIRLOCK STRUCTURE-DRY PIPE FIRE PROTECTION		4,250.00	SF	0	CN-SPRI	\$0	\$0	\$0	\$15,513	\$0	\$15,513

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project - Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.06.15.02 AIRLOCK - FIRE PROTECTION												
Memo: Costs are based on contacting a local fire protection vendor that has provided many hours of time as a consultant for the INEEL. This company has also design and installed many fire protection systems at the INEEL as well as the GEM project. Fire system control costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility.												
	FP CHARACTERIZATION AIRLOCK- FEED MAINS	U.C. per LF	100.00	LF	0	CN-SPRI	\$0	\$0	\$0	65.3 \$6,530	\$0	65.3 \$6,530
Subtotal							\$0	\$0	\$0	\$36,493	\$0	\$36,493
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$9,243	\$0	\$9,243
Subtotal Estimate												\$45,736
Escalation							\$0	\$0	\$0	\$6,110	\$0	\$6,110
Contingency							\$0	\$0	\$0	\$25,582	\$0	\$25,582
---Total 4.2.06.15.02 AIRLOCK - FIRE PROTECTION					0		\$0	\$0	\$0	\$77,428	\$0	\$77,420

4.2.06.15.03 AIRLOCK - PLANT AIR

Memo: Costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility. Equipment cost for the compressor is by the retrieval project.

	AIRLOCK TO CHARACTERIZATION-PLANT AIR DIST. SYSTEM	U.C. per SF	4,250.00	SF	0		\$0	\$0	\$0	2.04 \$8,670	\$0	2.04 \$8,670
Subtotal							\$0	\$0	\$0	\$8,670	\$0	\$8,670
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$8,670
Escalation							\$0	\$0	\$0	\$1,158	\$0	\$1,158
Contingency							\$0	\$0	\$0	\$4,850	\$0	\$4,850
---Total 4.2.06.15.03 AIRLOCK - PLANT AIR					0		\$0	\$0	\$0	\$14,670	\$0	\$14,670

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project - Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEV**
 Estimate Type: **Project Support**

<u>Code</u>	<u>DescriDtion</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.06.15.04AIRLOCK • BREATHING AIR												
Memo: Costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility. No costs for the breathing air compressor have been included, assume provided to the project by the BBWI equipment pool at no cost to this project.												
	AIRLOCK TO CHARACTERIZATION-BREATHINGAIR DIST. SYSTEM	U.C. per	4,250.00		0		\$0	\$0	\$0	11 2 \$47,600	0 \$0	17 2 \$47,600
Subtotal							\$0	\$0	\$0	\$47,600	\$0	\$47,600
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractorOverheads							0.00%	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$47,600
Escalation							\$0	\$0	\$0	\$6,359	\$0	\$6,359
Contingency							\$0	\$0	\$0	\$26,625	\$0	\$26,625
— Total 4.2.06.15.04AIRLOCK - BREATHINGAIR					0		\$0	\$0	\$0	\$80,585	\$0	\$80,585

4.2.06.16.01AIRLOCK • GENERAL FACILITIES ELECTRICAL

Memo: Costs are based on the **GEM** project calculated square footage.

FACILITY RACEWAYS	U.C. per SF	4,250.00	SF	0			0 \$0	0 \$0	0 \$0	17 \$72,250	0 \$0	77 \$72,250
FACILITY WIRE & CABLE	U.C. per SF	4,250.00	SF	0			0 \$0	0 \$0	0 \$0	6.36 \$27,030	0 \$0	6.36 \$27,030
FACILITY LIGHTING	U.C. per SF	4,250.00	SF	0			0 \$0	0 \$0	0 \$0	8.75 \$37,180	0 \$0	8.75 \$37,188

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project - Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS B. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Eaument</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.06.16.01 AIRLOCK - GENERAL FACILITIES ELECTRICAL												
Memo: Costs are based on the GEM project calculated square footage.												
		<i>U.C. per SF</i>										
	FACILITY MISC. (TELEPHONE, LIGHTNING PROTECTION, ETC.)		4,250.00	SF	0		\$0	\$0	\$0	5.45 \$23,163	0 \$0	5.45 \$23,163
Subtotal							\$0	\$0	\$0	\$159,630	\$0	\$159,630
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractorOverheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$159,630
Escalation							\$0	\$0	\$0	\$21,327	\$0	\$21,327
Contingency							\$0	\$0	\$0	\$89,290	\$0	\$89,290
—Total 4.2.06.16.01 AIRLOCK - GENERAL FACILITIES ELECTRICAL					0		\$0	\$0	\$0	\$270,247	\$0	\$270,247

4.2.06.16.03 AIRLOCK - MONITORING AND CONTROLS

Memo: Unit costs are based on the GEM project calculated square footage. This unit cost also included HVAC controls.

		<i>U.C. per SF</i>										
	MONITORING AND CONTROLS-INSTRUMENTATION (BASED ON THE GEM PROJECT SF)		4,250.00	SF	0		\$0	\$0	\$0	5.9 \$25,075	0 \$0	5.9 \$25,075
		<i>U.C. per SF</i>										
	MONITORING AND CONTROLS-CABLES (BASED ON THE GEM PROJECT SF)		4,250.00	SF	0		\$0	\$0	\$0	1.5 \$6,375	0 \$0	1.5 \$6,375

Memo: Unit costs were adjusted down by 50% from the GEM project due to the economy of scale.

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project- Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.06.16.03 AIRLOCK - MONITORING AND CONTROLS												
<i>Memo: Unit costs are based on the GEM project calculated square footage. This unit cost also included HVAC controls.</i>												
	MONITORING AND CONTROLS-RACEWAYS (BASED ON THE GEM PROJECT SF)		4,250.00	SF	0		\$0	\$0	\$0	1.45 \$6,163	0 \$0	1.45 \$6,163
<i>Memo: Unit costs were adjusted down by 50% from the GEM project due to the economy of scale.</i>												
Subtotal							\$0	\$0	\$0	\$37,613	\$0	\$37,613
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$37,613
Escalation							\$0	\$0	\$0	\$5,025	\$0	\$5,025
Contingency							\$0	\$0	\$0	\$21,039	\$0	\$21,039
--- Total 4.2.06.16.03 AIRLOCK - MONITORING AND CONTROLS					0		\$0	\$0	\$0	\$63,676	\$0	\$63,676
4.2.06.16.04 AIRLOCK - CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION												
	CRITICALITY SYSTEM INSTALLATION		1.00	EA	0		\$0	\$0	\$0	20185 \$20,185	0 \$0	20185 \$20,185
<i>Memo: Based on the GEM project installation costs for criticality equipment.</i>												
	RADIOLOGICAL MONITORING EQUIPMENT INSTALLATION		1.00	LS	0		\$0	\$0	\$0	16349 \$16,349	0 \$0	16349 \$16,349
Subtotal							\$0	\$0	\$0	\$36,534	\$0	\$36,534
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$36,534
Escalation							\$0	\$0	\$0	\$4,881	\$0	\$4,881
Contingency							\$0	\$0	\$0	\$20,436	\$0	\$20,436
--- Total 4.2.06.16.04 AIRLOCK - CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION					0		\$0	\$0	\$0	\$61,850	\$0	\$61,850

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage 111 Project - Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS B. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.06.16.05 AIRLOCK - CCTV MONITORING SYSTEM</u>												
Memo: Costs are based on the GEM project calculated square footage.												
						<i>U.C. per SF</i>						
	CCTV MONITORING SYSTEM-INSTALLATION LABOR		4,250.00	SF	0		\$0	\$0	\$0	1.36	\$0	1.36
	Memo: Unit costs are based on the GEM project. Camera equipment costs are included in the procurement WBS											
	Subtotal						\$0	\$0	\$0	\$5,780	\$0	\$5,780
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads					0.00%	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$5,780
	Escalation						\$0	\$0	\$0	\$772	\$0	\$772
	Contingency						\$0	\$0	\$0	\$3,233	\$0	\$3,233
—Total 4.2.06.16.05 AIRLOCK - CCTV MONITORING SYSTEM					0		\$0	\$0	\$0	\$9,785	\$0	\$9,785

4.2.07 OFFICE/RESTROOM AREAS

Memo: Office area costs are based on historical costs of three office buildings constructed at the INEEL. The three buildings are CFA Training Facility (5000 sf), TRA 678 office building (5000 sf), and ICPP Ops Training Facility CPP 1651. Estimate file contains historical back-up information.

						<i>U.C. per SF</i>						
	OFFICE AREAS		1,400.00	SF	0		\$0	\$0	\$0	178.13	\$0	178.13
							\$0	\$0	\$0	\$249,382	\$0	\$249,382
						<i>U.C. per SF</i>						
	REST ROOM AREA 30 X 60		1,800.00	SF	0		\$0	\$0	\$0	143.73	\$0	143.73
	Memo: Unit costs for this pre-engineered metal building is based on historical cost of a facility erected at the RWMC area in 1996, the RWMC Maintenance Facility. The reflected unit cost includes slab on grade, building structure, mechanical, and electrical. The estimate file contains the historical cost data sheet.											
						<i>U.C. per EA</i>						
	WATER CLOSETS	PIPE	8.00	EA	0	CN-PIPE	\$0	\$0	\$0	1250	\$0	1250
							\$0	\$0	\$0	\$10,000	\$0	\$10,000
						<i>U.C. per EA</i>						
	URINALS	PIPE	3.00	EA	0	CN-PIPE	\$0	\$0	\$0	750	\$0	750
							\$0	\$0	\$0	\$2,250	\$0	\$2,250
						<i>U.C. per EA</i>						
	LAVATORIES	PIPE	5.00	EA	0	CN-PIPE	\$0	\$0	\$0	650	\$0	650
							\$0	\$0	\$0	\$3,250	\$0	\$3,250
						<i>U.C. per EA</i>						
	SHOWERS	PIPE	8.00	EA	0	CN-PIPE	\$0	\$0	\$0	1000	\$0	1000
							\$0	\$0	\$0	\$8,000	\$0	\$8,000

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project- Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.07 OFFICE/RESTROOM AREAS												
Memo: Office area costs are based on historical costs of three office buildings constructed at the INEEL. The three buildings are CFA Training Facility (5000 sf), TRA 678 office building (5000 sf), and ICPP Ops Training Facility CPP 1651. Estimate file contains historical back-up information.												
	WATER COOLER	PIPE	U.C. per EA	1.00	EA	0	CN-PIPE	\$0	\$0	\$0	990	\$990
	LOCKERS	PIPE	U.C. per EA	80.00	EA	0	CN-PIPE	\$0	\$0	\$0	30	\$2,400
Subtotal								\$0	\$0	\$0	\$534,986	\$534,986
Sales Tax								\$0	\$0	\$0	\$0	\$0
INEEU Subcontractor Overheads								\$0	\$0	\$0	\$12,935	\$12,935
Subtotal Estimate												5547,921
Escalation								\$0	\$0	\$0	\$73,202	\$73,202
Contingency								\$0	\$0	\$0	\$306,483	\$306,483
—Total 4.2.07 OFFICE/RESTROOM AREAS						0		\$0	\$0	\$0	\$927,606	\$927,606

4.2.08 INTERIM STORAGE FACILITY

Memo: Cost are based on actual construction cost information provided by the BBWI PCE group. A facility of this type was constructed at the RWMC facility WMF-628 and WMF-629 these costs were captured on a cost closing statement report, and is included in the estimate back-up file.

	INTERIM STORAGE FACILITY		U.C. per LS	1.00	LS	0		\$0	\$0	\$0	2726000	\$2,726,000
Subtotal								\$0	\$0	\$0	\$2,726,000	\$2,726,000
Sales Tax								\$0	\$0	\$0	\$0	\$0
INEEU Subcontractor Overheads								\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$2,726,000
Escalation								\$0	\$0	\$0	\$364,194	\$364,194
Contingency								\$0	\$0	\$0	\$1,524,805	\$1,524,805
—Total 4.2.08 INTERIM STORAGE FACILITY						0		\$0	\$0	\$0	\$4,614,998	\$4,614,998

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project- Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qtv</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
6.1 TESTING AND TURNOVER PLANNING												
<i>Memo: Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.</i>												
	TESTING & TURNOVER PLANNING					U.C. per \$						
			136,934,960.00	\$	0		\$0	\$0	\$0	\$0	0.002	0.002
											\$273,870	\$273,870
	Subtotal						\$0	\$0	\$0	\$0	\$273,870	\$273,870
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$273,870
	Escalation						\$0	\$0	\$0	\$0	\$44,038	\$44,038
	Contingency						\$0	\$0	\$0	\$0	\$272,998	3272.998
—Total 6.1 TESTING AND TURNOVER PLANNING					0		\$0	\$0	\$0	\$0	\$590,906	5590,906

6.2.01 S. O. TESTING

	S. O. TESTING					U.C. per \$						
			136,934,960.00	\$	0		\$0	\$0	\$0	\$0	0.03	0.03
											\$4,108,049	\$4,108,049
	Subtotal						\$0	\$0	\$0	\$0	\$4,108,049	\$4,108,049
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$4,100,049
	Escalation						\$0	\$0	\$0	\$0	\$660,574	\$660,574
	Contingency						\$0	\$0	\$0	\$0	\$4,094,965	\$4,094,965
—Total 6.2.01 S. O. TESTING					0		\$0	\$0	\$0	\$0	\$0,063,500	\$0,063,500

6.2.02 TRIAL BURN

	BURN TEST - SAMPLE CREW		1.00	LOT	0		\$0	\$0	\$0	200000	0	200000
						U.C. per LOT				\$200,000	\$0	\$200,000
	BBWI-A				4725	552.05	245940.75	0	0	0	0	245940.75
	BURN TEST - OPERATORS		1.00	LOT	4,725	T21	\$245,941	\$0	\$0	\$0	\$0	5245,941

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project - Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
9.2.02 TRIAL BURN												
	BURN TEST - FUEL		1.00	LOT	0		0 \$0	0 \$0	100000 \$100,000	0 \$0	0 \$0	100000 \$100,000
	PARTICULATES (IN LIQUIDS)		15.00	TESTS	0		800 \$12,000	0 \$0	0 \$0	0 \$0	0 \$0	800 \$12,000
	DENSITY		6.00	TESTS	0		800 \$4,800	0 \$0	0 \$0	0 \$0	0 \$0	800 \$4,800
	HEAT OF COMBUSTION		3.00	TESTS	0		3000 \$9,000	0 \$0	0 \$0	0 \$0	0 \$0	3000 \$9,000
	TOTAL CHLORINE		6.00	TESTS	0		2000 \$12,000	0 \$0	0 \$0	0 \$0	0 \$0	2000 \$12,000
	TOTAL ORGANIC HALOGENS		6.00	TESTS	0		3000 \$18,000	0 \$0	0 \$0	0 \$0	0 \$0	3000 \$18,000
	VISCOSITY		6.00	TESTS	0		800 \$4,800	0 \$0	0 \$0	0 \$0	0 \$0	800 \$4,800
	ICP METALS		18.00	TESTS	0		9000 \$162,000	0 \$0	0 \$0	0 \$0	0 \$0	9000 \$162,000
	MERCURY		18.00	TESTS	0		3000 \$54,000	0 \$0	0 \$0	0 \$0	0 \$0	3000 \$54,000
	TSS		12.00	TESTS	0		1000 \$12,000	0 \$0	0 \$0	0 \$0	0 \$0	1000 \$12,000
	TDS		12.00	TESTS	0		1000 \$12,000	0 \$0	0 \$0	0 \$0	0 \$0	1000 \$12,000
	TOC		12.00	TESTS	0		2000 \$24,000	0 \$0	0 \$0	0 \$0	0 \$0	2000 \$24,000
	pH		12.00	TESTS	0		1000 \$12,000	0 \$0	0 \$0	0 \$0	0 \$0	1000 \$12,000

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project - Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEV**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
6.2.02 TRIAL BURN												
	HALOGENS		<i>U.C. per TESTS</i> 12.00	TESTS	0		<i>2000</i> \$24,000	0 \$0	0 \$0	0 \$0	0 \$0	<i>2000</i> \$24,000
	PCB		<i>U.C. per TESTS</i> 18.00	TESTS	0		<i>5000</i> \$90,000	0 \$0	0 \$0	0 \$0	0 \$0	<i>5000</i> \$90,000
	TCLP		<i>U.C. per TESTS</i> 18.00	TESTS	0		<i>30000</i> \$540,000	0 \$0	0 \$0	0 \$0	0 \$0	<i>30000</i> \$540,000
	DIOXINS AND FURANS		<i>U.C. per TESTS</i> 12.00	TESTS	0		<i>5 m</i> \$60,000	0 \$0	0 \$0	0 \$0	0 \$0	<i>5000</i> \$60,000
	PARTICULATES (IN GASES)		<i>U.C. per TESTS</i> 24.00	TESTS	0		<i>1000</i> \$24,000	0 \$0	0 \$0	0 \$0	0 \$0	<i>1000</i> \$24,000
	HCL AND CL2		<i>U.C. per TESTS</i> 36.00	TESTS	0		<i>3000</i> \$108,000	0 \$0	0 \$0	0 \$0	0 \$0	<i>3000</i> \$108,000
	VOLATILE ORGANICS		<i>U.C. per TESTS</i> 12.00	TESTS	0		<i>10000</i> \$120,000	0 \$0	0 \$0	0 \$0	0 \$0	<i>10000</i> \$120,000
	SEMI-VOLATILE ORGANICS		<i>U.C. per TESTS</i> 12.00	TESTS	0		<i>10000</i> \$120,000	0 \$0	0 \$0	0 \$0	0 \$0	<i>10000</i> \$120,000
	ICP METALS		<i>U.C. per TESTS</i> 36.00	TESTS	0		<i>9000</i> \$324,000	0 \$0	0 \$0	0 \$0	0 \$0	<i>9000</i> \$324,000
	MERCURY		<i>U.C. per TESTS</i> 36.00	TESTS	0		<i>3000</i> \$108,000	0 \$0	0 \$0	0 \$0	0 \$0	<i>3000</i> \$108,000
	PCB		<i>U.C. per TESTS</i> 9.00	TESTS	0		<i>5000</i> \$45,000	0 \$0	0 \$0	0 \$0	0 \$0	<i>5000</i> \$45,000
	CONTINUOUS CO & O2 MONITORING		<i>U.C. per TESTS</i> 3.00	TESTS	0		<i>10000</i> \$30,000	0 \$0	0 \$0	0 \$0	0 \$0	<i>10000</i> \$30,000
	EPA COMPREHENSIVE TEST REPORT		<i>U.C. per LOT</i> 1.00	LOT	2700 2,700	\$79.75 E08	215323.13 \$215,323	0 \$0	0 \$0	0 \$0	0 \$0	215323.13 \$215,323

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project- Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
6.2.02 TRIAL BURN												
	RCRA TRIAL BURN/DRE TEST REPORT		1.00	LOT	1350	\$79.75	107661.57	0	0	0	0	107661.57
					1.350	E08	\$107,662	\$0	\$0	\$0	\$0	\$107,662
	BURN TEST SAMPLE VALIDATION		351.00	EA	0	E08	0	0	0	45	0	45
							\$0	\$0	\$0	\$15,795	\$0	\$15,795
	WASTE FEED ANALYSIS SAMPLES		20.00	EA	0	E08	0	0	0	15000	0	15000
							\$0	\$0	\$0	\$300,000	\$0	\$300,000
	WASTE FEED ANALYSIS SAMPLE VALIDATION		120.00	EA	0	E08	0	0	0	45	0	45
							\$0	\$0	\$0	\$5,400	\$0	\$5,400
	NEPA SUPPORT		1.00	LOT	750	\$79.75	59811.98	0	0	0	0	59811.98
					750	E08	\$59,812	\$0	\$0	\$0	\$0	\$59,812
	PUBLIC MEETINGS		1.00	LOT	450	\$79.75	35887.19	0	0	0	0	35887.19
					450	E08	\$35,887	\$0	\$0	\$0	\$0	\$35,887
	REPRODUCTION AND TECH EDITOR COSTS		1.00	LOT	0		0	0	0	320000	0	320000
							\$0	\$0	\$0	\$320,000	\$0	\$320,000
Subtotal							\$2,594,225	\$0	\$100,000	\$841,195	\$0	\$3,535,420
Sales Tax							\$0	\$0	\$6,000	\$0	\$0	\$6,000
INEEU Subcontractor Overheads							0.79%	\$28,037	\$0	\$0	\$0	\$28,037
Subtotal Estimate												\$3,569,457
Escalation							\$433,460	\$0	\$17,522	\$139,050	\$0	\$590,031
Contingency							\$2,624,044	\$0	\$106,072	\$841,767	\$0	\$3,571,882
—Total 6.2.02 TRIAL BURN					9,975		\$5,679,765	\$0	\$229,594	\$1,822,011	\$0	\$7,731,370

5.3 ORR SUPPORT

Memo: Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.

	ORR SUPPORT						0	0	0	0	0.002	0.002
			136,934,960.00	\$	0		\$0	\$0	\$0	\$0	\$301,257	\$301,257

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project- Compact A// with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
6.3 ORR SUPPORT												
<i>Memo: Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.</i>												
	Subtotal						\$0	\$0	\$0	\$0	\$301,257	\$301,257
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$301,257
	Escalation						\$0	\$0	\$0	\$0	\$48,442	\$48,442
	Contingency						\$0	\$0	\$0	\$0	\$300,297	\$300,297
--Total 6.3 ORR SUPPORT					0		\$0	\$0	\$0	\$0	\$649,996	\$649,996

6.4 FACILITY ACCEPTANCE REVIEW

Memo: Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.

	FACILITY ACCEPTANCE REVIEW	U.C. per 5 136,934,960.00\$		0		\$0	\$0	\$0	\$0	0	0.002 \$205,402	0.002 \$205,402
	Subtotal						\$0	\$0	\$0	\$0	\$205,402	\$205,402
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$205,402
	Escalation						\$0	\$0	\$0	\$0	\$33,029	\$33,029
	Contingency						\$0	\$0	\$0	\$0	\$204,748	\$204,748
--Total 6.4 FACILITY ACCEPTANCE REVIEW					0		\$0	\$0	\$0	\$0	\$443,179	\$443,179

6.5 RADIOLOGICAL CONTROL SUPPORT

Memo: Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.

	RAD CONTROL SUPPORT	U.C. per 5 136,934,960.00 \$		0		\$0	\$0	\$0	\$0	0	0.00 \$150,628	0.00 \$150,628
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DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project- Compact AN with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
6.5 RADIOLOGICAL CONTROL SUPPORT												
<i>Memo: Percentage allowances derived by the project team on the CSIX/TRUE Grout Feasibility Study, produced by Washington Group International, December, 2000.</i>												
	Subtotal						\$0	\$0	\$0	\$0	\$150,628	\$150,628
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											5150,628
	Escalation						\$0	\$0	\$0	\$0	\$24,221	\$24,221
	Contingency						\$0	\$0	\$0	\$0	\$150,149	5150,149
--Total 6.5 RADIOLOGICAL CONTROL SUPPORT					0		\$0	\$0	\$0	\$0	\$324,998	\$324,998

6.6 OPERATOR TRAINING

Memo: Percentage allowances derived by the project team on the CSIX/TRUE Grout Feasibility Study, produced by Washington Group International, December, 2000.

	OPERATOR TRAINING	U.C. per \$ 136,934,960.00	\$	0			0 \$0	0 \$0	0 \$0	0 \$0	0.02 \$2,738,699	0.02 \$2,730,699
	Subtotal						\$0	\$0	\$0	\$0	\$2,738,699	\$2,730,699
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$2,738,699
	Escalation						\$0	\$0	\$0	\$0	\$440,383	\$440,383
	Contingency						\$0	\$0	\$0	\$0	\$2,729,977	\$2,729,977
--Total 6.6 OPERATOR TRAINING					0		\$0	\$0	\$0	\$0	\$5,909,059	\$5,909,059

6.7 OPERATING PROCEDURES

Memo: Percentage allowances derived by the project team on the CSIX/TRUE Grout Feasibility Study, produced by Washington Group International, December, 2000.

	OPERATING PROEDURES	U.C. per \$ 136,934,960.00	\$	0			0 \$0	0 \$0	0 \$0	0 \$0	0.004 \$602,514	0.004 \$602,514
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DETAIL ITEM REPORT

Project Name: *OU 7-70 Staged Interim Action*
Stage III Project - Compact All with Incineration Option
 Project Location: *INEEL-RWMC*
 Estimate Number: *5974-2 (1+2aP)*

Client: *S. L. Austad*
 Prepared By: *R. D. ADAMS/S. N. WASLEY*
 Estimate Type: *Project Support*

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
6.7 OPERATING PROCEDURES												
<i>Memo: Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.</i>												
	Subtotal						\$0	\$0	\$0	\$0	\$602,514	\$602,514
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$602,514
	Escalation						\$0	\$0	\$0	\$0	\$96,884	\$96,884
	Contingency						\$0	\$0	\$0	\$0	\$600,595	\$600,595
— Total 6.7 OPERATING PROCEDURES					0		\$0	\$0	\$0	\$0	\$1,299,993	\$1,299,993

6.8 START-UP COORDINATION

Memo: Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.

STARTUP COORDINATION	U.C. per \$	0	0	0	0	0.00	0.00
	136,934,960.00	\$ 0	\$0	\$0	\$0	\$178,015	\$178,015
<hr/>							
Subtotal			\$0	\$0	\$0	\$178,015	\$178,015
Sales Tax			\$0	\$0	\$0	\$0	\$0
INEEUSubcontractor Overheads	0.00%		\$0	\$0	\$0	\$0	\$0
<hr/>							
Subtotal Estimate							\$178,015
Escalation			\$0	\$0	\$0	\$28,625	\$28,625
Contingency			\$0	\$0	\$0	\$177,449	\$177,449
<hr/>							
— Total 6.8 START-UP COORDINATION		0	\$0	\$0	\$0	\$384,089	\$384,089

6.9 SPARES

Memo: In support of start-up and testing only. Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.

	SPARES	<i>U.C. per LS</i>	84,714,343.00	LS	0		\$0	\$0	\$5,082,861	\$0	\$0	\$5,082,861
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Memo: Calculated at 6% of procurement costs.

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project - Compact All with Incineration Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (1+2aP)**

Client: **S. L. Austad**
 Prepared By: **R. D. ADAMS/S. N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
6.9 SPARES												
<i>Memo: In support of start-up and testing only. Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.</i>												
	Subtotal						\$0	\$0	\$5,082,861	\$0	\$0	\$5,082,861
	Sales Tax						\$0	\$0	\$304,972	\$0	\$0	\$304,972
	INEEL Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate						\$0	\$0	\$866,363	\$0	\$0	\$5,387,832
	Escalation						\$0	\$0	\$5,370,673	\$0	\$0	\$866,363
	Contingency						\$0	\$0				\$5,370,673
— Total 6.9 SPARES						0	\$0	\$0	\$11,624,869	\$0	\$0	\$11,624,869

7.0 PROJECT MANAGEMENT

Memo: Percentage of construction and procurement costs based on detailed input from the project team for the LCB effort, OU 7-10 PIT-9 STAGE III - LCB, estimate # 5974-1. Also considered were percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000. Where large discrepancies occurred, an average of the two percentages was applied here.

	PROJECT MANAGEMENT SUPPORT	U.C. per \$ 136,934,960.00\$	0		\$0	\$0	\$0	\$0	\$0	\$1,324,146	\$0	\$12,324,146
	Subtotal				\$0	\$0	\$0	\$0	\$0	\$1,324,146		\$12,324,146
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate				\$0	\$0	\$0	\$0	\$0	\$1,318,684		\$12,324,146
	Escalation				\$0	\$0	\$0	\$0	\$0	\$5,017,236		\$1,318,684
	Contingency				\$0	\$0	\$0	\$0	\$0			\$5,017,236
— Total 7.0 PROJECT MANAGEMENT						0	\$0	\$0	\$0	\$0	\$18,660,066	\$18,660,066

DETAIL ITEM REPORT

Project Name: *OU 7-10 Staged Interim Action*
Stage III Project - Compact All with Incineration Option
 Project Location: *INEEL-RWMC*
 Estimate Number: *5974-2 (1+2aP)*

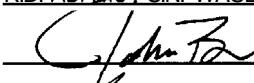
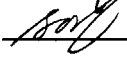
Client: *S. L. Austad*
 Prepared By: *R. D. ADAMS/S. N. WASLEY*
 Estimate Type: *Project Support*

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
Subtotal	COMPACT ALL WITH INCINERATION						\$21,218,783	\$1,060,686	\$91,284,515	\$32,496,870	\$95,040,057	\$**,***,***
Sales Tax							\$0	\$0	\$5,477,071	\$0	\$0	\$5,477,071
INEEUSubcontractor Overheads							\$2,843,112	\$343,370	\$2,574,083	\$2,219,970	\$0	\$7,980,534
Subtotal Estimate												\$**,***,***
Escalation							\$3,297,795	\$187,582	\$8,973,652	\$3,419,001	\$9,215,820	\$25,093,849
Contingency							\$14,616,431	\$785,367	\$66,930,474	\$20,915,211	\$64,177,558	\$**,***,***
Total	COMPACT ALL WITH INCINERATION			222,354			\$41,976,120	\$2,377,004	\$175,239,795	\$59,051,053	\$168,433,435	\$447,077,407

TPC Summary Report

Project Name: *OU 7-10 Staged Interim Action*
Stage III Project Treatment-Melt all with Thermal Disorption Option
 Project Location: *INEEL-RWMC*
 Project Number: *59762 (2b+3aP)*

<u>ESTIMATE ELEMENT</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Continaency</u>	<u>TOTAL</u>
		10.02%	61.51%	
Total Estimated Cost (TEC)	\$260,699,059	\$26,134,779	\$176,425,380	\$463,259,218
<hr/>				
		10.02%	61.51%	
Total Project Cost (TPC)	\$260,699,059	\$26,134,779	\$176,425,380	\$463,259,218
Rounded TPC (Rounded to the nearest \$ 1000000)				\$463,000,000

	Remarks
Type of Estimate: <u>Project Support</u> Estimator: <u>R.D. ADAMS / S.N. WASLEY</u> Checked By: <u></u> Approved By: <u></u>	



Project Summary Report

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltail with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Level</u>	<u>Description</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Contingency</u>	<u>Contingency %</u>	<u>TOTAL</u>
1.0	ESH&Q	\$18,323,543	\$1,486,039	\$14,347,339	72.43%	\$34,156,921
1.01	--ENVIRONMENTAL	\$8,941,434	\$725,150	\$7,001,145	72.43%	\$16,667,730
1.02	--SAFETY ANALYSIS	\$1,449,962	\$117,592	\$1,135,321	72.43%	\$2,702,875
1.03	--SAFETY & HEALTH	\$2,601,403	\$210,974	\$2,036,899	72.43%	\$4,849,276
1.04	--FIRE PROTECTION	\$213,230	\$17,293	\$166,959	72.43%	\$397,482
1.05	--RADIOLOGICAL CONTROLS	\$781,842	\$63,407	\$612,183	72.43%	\$1,457,433
1.07	--EMERGENCY PLANNING	\$28,431	\$2,306	\$22,261	72.43%	\$52,998
1.08	--SAFEGUARDS & SECURITY	\$42,646	\$3,459	\$33,392	72.43%	\$79,496
1.09	--QUALITY	\$4,264,595	\$345,859	\$3,339,179	72.43%	\$7,949,633
2.0	DESIGN ENGINEERING	\$45,030,633	\$3,104,979	\$32,259,412	67.02%	\$80,395,024
2.01	--CONCEPTUAL DESIGN	\$5,686,127	\$147,839	\$3,909,794	67.02%	\$9,743,760
2.02	--PRELIMINARY DESIGN	\$8,529,190	\$458,017	\$6,023,026	67.02%	\$15,010,233
2.03	--FINAL DESIGN	\$14,215,317	\$1,152,862	\$10,299,410	67.02%	\$25,667,589
2.04	--TRANSURANIC REPORTING SYSTEM (TRIPS)	\$16,600,000	\$1,346,260	\$12,027,183	67.02%	\$29,973,443
3.0	PROCUREMENT	\$94,727,324	\$7,682,386	\$61,916,828	60.46%	\$164,326,537
3.1	--PROCUREMENT MANAGEMENT	\$2,302,881	\$186,764	\$1,505,237	60.46%	\$3,994,882
3.2	--PROCUREMENT - EQUIPMENT	\$79,293,447	\$6,430,699	\$51,828,750	60.46%	\$137,552,896
3.201	—EQUIPMENT PROCUREMENT (WRPF)	\$61,320,957	\$4,973,130	\$40,081,351	60.46%	\$106,375,437
3.2.01.01	-----WRPF EQUIPMENT	\$59,891,017	\$4,857,161	\$39,146,696	60.46%	\$103,894,874
3.2.01.02	-----WRPF-HVAC EQUIPMENT	\$1,259,386	\$102,136	\$823,175	60.46%	\$2,184,697
3.2.01.03	—WRPF I&C PROCUREMENT	\$170,554	\$13,832	\$111,480	60.46%	\$295,866
3.2.02	—EQUIPMENT PROCUREMENT (TDF)	\$2,448,017	\$198,534	\$1,600,103	60.46%	\$4,246,654
3.2.02.01	-----TDF - THERMAL DESORBER FEED SYSTEM	\$81,252	\$6,590	\$53,109	60.46%	\$140,951
3.2.02.02	-----TDF-SWEEP GAS SYSTEM	\$95,089	\$7,712	\$62,154	60.46%	\$164,955

INEEL

Project Summary Report

Project Name: OU 7-10 Staged Interim Action
Stage III Project Treatment-Meltall with Thermal Desorption Option
Project Location: INEEL-RWMC
Estimate Number: 5974-2 (2b+3aP)

Client: S. L. Austad
Prepared By: R.D. ADAMS / S.N. WASLEY
Estimate Type: Project Support

<u>Level</u>	<u>Description</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Contingency</u>	<u>Contingency %</u>	<u>TOTAL</u>
3.2.02.03	-----TDF-ROTARY SCREW THERMAL DESORBER	\$278,208	\$22,563	\$181,845	60.46%	\$482,616
3.2.02.04	-----TDF-DESORBER SOIL COLLECTION SYSTEM	\$711,005	\$57,662	\$464,735	60.46%	\$1,233,402
3.2.02.05	-----TDF- WATER & VOC COLLECTION & PROCESS	\$642,488	\$52,106	\$419,951	60.46%	\$1,114,545
3.2.02.06	-----TDF-HVAC EQUIPMENT	\$462,690	\$37,524	\$302,429	60.46%	\$802,643
3.2.02.07	-----TDF I&C PROCUREMENT	\$177,285	\$14,378	\$115,879	60.46%	\$307,542
3.2.04	-----EQUIPMENT PROCUREMENT (MELTER)	\$15,497,444	\$1,256,843	\$10,129,628	60.46%	\$26,883,915
3.2.04.01	-----MELTER FEED SYSTEM	\$79,911	\$6,481	\$52,233	60.46%	\$138,625
3.2.04.02	-----MELTER SYSTEM	\$12,084,000	\$980,012	\$7,898,491	60.46%	\$20,962,504
3.2.04.03	-----MELTER OFF GAS SYSTEM	\$1,148,173	\$93,117	\$750,483	60.46%	\$1,991,773
3.2.04.04	-----MELTER DRUM HANDLING	\$406,727	\$32,986	\$265,850	60.46%	\$705,563
3.2.04.05	-----MELTER I&C	\$409,690	\$33,226	\$267,787	60.46%	\$710,702
3.2.04.06	-----MELTER VENTILATION SYSTEM	\$1,269,717	\$102,974	\$829,928	60.46%	\$2,202,619
3.2.04.07	-----MELTER UTILITIES	\$99,226	\$8,047	\$64,857	60.46%	\$172,130
3.2.06	-----EQUIPMENT PROCUREMENT (AIRLOCK TO CHARACTERIZATION)	\$27,030	\$2,192	\$17,668	60.46%	\$46,890
3.3	--BBWI MATERIAL HANDLING FEE	\$13,130,995	\$1,064,924	\$8,582,841	60.46%	\$22,778,760
4.0	CONSTRUCTION	\$72,326,682	\$9,662,845	\$43,879,830	53.52%	\$125,869,357
4.1	--CONSTRUCTION MANAGEMENT	\$9,950,722	\$1,329,416	\$6,036,997	53.52%	\$17,317,135
4.2	--CONSTRUCTION SUBCONTRACTS	\$62,375,960	\$8,333,428	\$37,842,833	53.52%	\$108,552,221
4.2.01	---(WRPF) WASTE RECEIVING & PREP BLDG.	\$39,595,786	\$5,289,997	\$24,022,343	53.52%	\$68,908,126
4.2.01.01	-----WRPF - GENERAL CONDITIONS	\$8,646,399	\$1,155,159	\$5,245,679	53.52%	\$15,047,237
4.2.01.02	-----WRPF - SITEWORK	\$3,146,171	\$420,328	\$1,908,748	53.52%	\$5,475,248
4.2.01.02.01	UTILITY & SUPPORT	\$3,146,171	\$420,328	\$1,908,748	53.52%	\$5,475,248
4.2.01.02.01.01	UTILITY & SUPPORT - FIRE PUMP HOUSE	\$172,476	\$23,043	\$104,639	53.52%	\$300,158
4.2.01.02.01.02	UTILITY & SUPPORT - POTABLE WATER SYSTEM	\$86,731	\$11,587	\$52,619	53.52%	\$150,936
4.2.01.02.01.03	-----UTILITY & SUPPORT - SANITARY WASTE SYSTEM	\$201,511	\$26,922	\$122,255	53.52%	\$350,688

INEEL

Project Summary Report

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with ThermalDisorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Level</u>	<u>Description</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Continaency</u>	<u>Continaency%</u>	<u>TOTAL</u>
4.2.01.02.01.04	-----UTILITY & SUPPORT - FIRE PIPING SYSTEM	\$1,212,046	\$161,929	\$735,336	53.52%	\$2,109,311
4.2.01.02.01.05	-----ELECTRICAL SUPPLY	\$1,473,407	\$196,847	\$893,900	53.52%	\$2,564,154
4.2.01.02.01.05.2	-----SITEWORK	\$3,856	\$515	\$2,339	53.52%	\$6,710
4.2.01.02.01.05.3	-----CONCRETE	\$26,721	\$3,570	\$16,211	53.52%	\$46,502
4.2.01.02.01.05.4	-----ELECTRICAL	\$1,442,830	\$192,762	\$875,350	53.52%	\$2,510,942
4.2.01.02.01.05.4.1	-----SWITCHGEAR	\$615,613	\$82,246	\$373,486	53.52%	\$1,071,344
4.2.01.02.01.05.4.2	-----TRANSFORMERS	\$290,001	\$38,744	\$175,941	53.52%	\$504,686
4.2.01.02.01.05.4.3	-----STANDBY GENERATOR	\$379,571	\$50,711	\$230,282	53.52%	\$660,563
4.2.01.02.01.05.4.4	-----CONDUCTORS AND GROUNDING	\$147,015	\$19,641	\$89,192	53.52%	\$255,848
4.2.01.02.01.05.4.5	- -----TESTING	\$10,631	\$1,420	\$6,450	53.52%	\$18,501
4.2.01.02.02	-----WRPF EARTHWORK	\$213,462	\$28,519	\$129,505	53.52%	\$371,486
4.2.01.03	-----WRPF - CONCRETE	\$5,400,985	\$721,572	\$3,276,720	53.52%	\$9,399,278
4.2.01.05	-----WRPF - METALS	\$323,847	\$43,266	\$196,474	53.52%	\$563,587
4.2.01.07	-----WRPF -THERMAL & MOISTURE PROTECTION	\$1,079,325	\$144,198	\$654,815	53.52%	\$1,878,338
4.2.01.08	-----WRPF -DOORS & WINDOWS	\$21,475	\$2,869	\$13,029	53.52%	\$37,372
4.2.01.09	-----WRPF -FINISHES	\$1,216,719	\$162,554	\$738,171	53.52%	\$2,117,443
4.2.01.11	-----WRPF - EQUIPMENT-INSTALL GFE	\$7,665,120	\$1,024,060	\$4,650,347	53.52%	\$13,339,526
4.2.01.15	-----WRPF - MECHANICAL	\$7,957,580	\$1,063,133	\$4,827,779	53.52%	\$13,848,492
4.2.01.15.01	-----WRPF - INSTALL HVAC EQUIPMENT & DUCT	\$1,322,367	\$176,668	\$802,266	53.52%	\$2,301,301
4.2.01.15.02	-----WRPF - FIRE PROTECTION	\$3,872,176	\$517,323	\$2,349,208	53.52%	\$6,738,708
4.2.01.15.03	-----WRPF -PLANT AIR	\$127,500	\$17,034	\$77,353	53.52%	\$221,887
4.2.01.15.04	-----WRPF -BREATHING AIR	\$700,000	\$93,520	\$424,683	53.52%	\$1,218,203
	-----WRPF -PROCESS PIPING	\$1,935,537	\$258,588	\$1,174,270	53.52%	\$3,368,394
4.2.01.16	-----WRPF - ELECTRICAL	\$3,924,703	\$524,340	\$2,381,076	53.52%	\$6,830,119
4.2.01.16.01	-----WRPF - GENERAL FACILITIES ELECTRICAL	\$2,347,500	\$313,626	\$1,424,203	53.52%	\$4,085,329
4.2.01.16.02	-----WRPF - ELECTRICAL SWITCH GEAR & PANEL BOARDS	\$1,296,149	\$173,166	\$786,360	53.52%	\$2,255,675

INEEL

Project Summary Report

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Level</u>	<u>DescriDtion</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Continaency</u>	<u>Contingency%</u>	<u>TOTAL</u>
4.2.01.16.02.1	-----SWITCHGEAR	\$680,965	\$90,977	\$413,134	53.52%	\$1,185,077
4.2.01.16.02.2	-----EQUIPMENT CONTROLS	\$74,082	\$9,097	\$44,945	53.52%	\$128,924
4.2.01.16.02.3	-----RACEWAYS AND ENCLOSURES	\$112,674	\$15,053	\$68,358	53.52%	\$196,086
4.2.01.16.02.4	-----CONDUCTORS AND GROUNDING	\$411,797	\$55,818	\$253,473	53.52%	\$727,087
4.2.01.16.02.5	-----TESTING	\$10,631	\$1,420	\$6,450	53.52%	\$18,501
4.2.01.16.03	-----WRPF - MONITORING AND CONTROLS	\$119,150	\$15,918	\$72,287	53.52%	\$207,355
4.2.01.16.04	-----WRPF - CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION	\$76,904	\$10,274	\$46,657	53.52%	\$133,835
4.2.01.16.05	WRPF - CCTV MONITORING SYSTEM	\$85,000	\$11,356	\$51,569	53.52%	\$147,925
4.2.02	----(TDF) THERMAL DESORPTION BLDG.	\$3,468,051	\$463,332	\$2,104,030	53.52%	\$6,035,413
4.2.02.01	----TDF - GENERAL CONDITIONS	\$467,050	\$62,398	\$283,354	53.52%	\$812,803
4.2.02.02	-----TDF - SITEWORK	\$21,088	\$2,817	\$12,794	53.52%	\$36,699
4.2.02.03	-----TDF - CONCRETE	\$154,797	\$20,681	\$93,914	53.52%	\$269,392
4.2.02.05	-----TDF - METALS	\$214,314	\$28,632	\$130,022	53.52%	\$372,969
4.2.02.07	----TDF - THERMAL & MOISTURE PROTECTION	\$336,819	\$44,999	\$204,345	53.52%	\$586,163
4.2.02.08	----TDF - DOORS & WINDOWS	\$34,829	\$4,653	\$21,130	53.52%	\$60,612
4.2.02.09	---TDF - FINISHES	\$53,530	\$7,152	\$32,476	53.52%	\$93,158
4.2.02.1.1	-----TDF - EQUIPMENT-INSTALL GFE	\$226,005	\$30,194	\$137,115	53.52%	\$393,315
4.2.02.15	-----TDF - MECHANICAL	\$1,518,865	\$202,920	\$921,480	53.52%	\$2,643,265
4.2.02.15.01	TDF - HVAC	\$1,001,055	\$133,741	\$607,329	53.52%	\$1,742,125
4.2.02.15.01.01	-----TDF - INSTALL HVAC EQUIPMENT & DUCTWORK	\$464,163	\$62,012	\$281,603	53.52%	\$807,777
4.2.02.15.01.02	TDF - EXHAUST STACK	\$258,292	\$34,508	\$156,703	53.52%	\$449,503
4.2.02.15.01.03	-----TDF - EMISSIONS NOC MONITORING	\$278,600	\$37,221	\$169,024	53.52%	\$484,845
4.2.02.15.02	-----TDF - FIRE PROTECTION	\$125,184	\$16,725	\$75,948	53.52%	\$217,856
4.2.02.15.03	TDF - PLANT AIR	\$14,688	\$1,962	\$8,911	53.52%	\$25,561
4.2.02.15.04	-----TDF - BREATHING AIR	\$80,640	\$10,774	\$48,923	53.52%	\$140,337
	-----TDF - PROCESS PIPING	\$297,298	\$39,719	\$180,368	53.52%	\$517,385

INEEL

Project Summary Report

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Level</u>	<u>Description</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Contingency</u>	<u>Contingency %</u>	<u>TOTAL</u>
4.2.02.16	-----TDF - ELECTRICAL	\$440,753	\$58,885	\$267,400	53.52%	\$767,038
4.2.02.16.01	-----TDF - GENERAL FACILITIES ELECTRICAL	\$270,432	\$36,130	\$164,068	53.52%	\$470,630
4.2.02.16.03	-----TDF - MONITORING AND CONTROLS	\$83,625	\$11,172	\$50,734	53.52%	\$145,532
4.2.02.16.04	-----TDF - CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION	\$76,904	\$10,274	\$46,657	53.52%	\$133,835
4.2.02.16.04	-----TDF - CCTV MONITORING SYSTEM	\$9,792	\$1,308	\$5,941	53.52%	\$17,041
4.2.04	---MELTER BLG.	\$16,072,150	\$2,147,239	\$9,750,803	53.52%	\$27,970,192
4.2.04.01	-----MELTER - GENERAL CONDITIONS	\$2,296,968	\$306,875	\$1,393,546	53.52%	\$3,997,389
4.2.04.02	-----MELTER - SITEWORK	\$196,208	\$26,213	\$119,037	53.52%	\$341,459
4.2.04.03	-----MELTER - CONCRETE	\$899,933	\$120,231	\$545,980	53.52%	\$1,566,143
4.2.04.05	-----MELTER - METALS	\$1,263,810	\$168,845	\$766,740	53.52%	\$2,199,396
4.2.04.07	-----MELTER - THERMAL & MOISTURE PROTECTION	\$1,827,130	\$244,105	\$1,108,501	53.52%	\$3,179,735
4.2.04.08	-----MELTER - DOORS & WINDOWS	\$71,173	\$9,509	\$43,180	53.52%	\$123,862
4.2.04.09	-----MELTER - FINISHES	\$313,420	\$41,873	\$190,149	53.52%	\$545,442
4.2.04.1	-----MELTER - EQUIPMENT-INSTALL GFE	\$1,937,180	\$258,807	\$1,175,267	53.52%	\$3,371,254
4.2.04.15	-----MELTER - MECHANICAL	\$5,570,802	\$744,259	\$3,379,747	53.52%	\$9,694,808
4.2.04.15.01	-----MELTER - HVAC	\$2,945,911	\$393,574	\$1,787,253	53.52%	\$5,126,737
4.2.04.15.01.01	-----MELTER - INSTALL HVAC EQUIPMENT & DUCTWORK	\$2,409,088	\$321,845	\$1,461,526	53.52%	\$4,192,389
4.2.04.15.01.02	-----MELTER - EXHAUST STACK	\$258,292	\$34,508	\$156,703	53.52%	\$449,503
4.2.04.15.01.03	-----MELTER - EMISSIONS NOC MONITORING	\$278,600	\$37,221	\$169,024	53.52%	\$484,845
4.2.04.15.02	-----MELTER - FIRE PROTECTION	\$879,453	\$117,495	\$533,555	53.52%	\$1,530,503
4.2.04.15.03	-----MELTER - PLANT AIR	\$78,071	\$10,430	\$47,365	53.52%	\$135,866
4.2.04.15.04	-----MELTER - BREATHING AIR	\$428,624	\$57,264	\$260,042	53.52%	\$745,930
	-----MELTER - PROCESS PIPING	\$1,238,744	\$165,496	\$751,533	53.52%	\$2,155,772
4.2.04.16	-----MELTER - ELECTRICAL	\$1,695,524	\$226,522	\$1,028,657	53.52%	\$2,950,703
4.2.04.16.01	-----MELTER - GENERAL FACILITIES ELECTRICAL	\$1,454,323	\$194,298	\$882,322	53.52%	\$2,530,943
4.2.04.16.03	-----MELTER - MONITORING AND CONTROLS	\$112,250	\$14,997	\$68,101	53.52%	\$195,347

INEEL

Project Summary Report

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Level</u>	<u>Description</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Continaency</u>	<u>Continaency%</u>	<u>TOTAL</u>
4.2.04.16.04	-----MELTER - CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION	\$76,904	\$10,274	\$46,657	53.52%	\$133,835
4.2.04.16.05	MELTER - CCTV MONITORING SYSTEM	\$52,047	\$6,954	\$31,576	53.52%	\$90,577
4.2.06	----AIRLOCK TO CHARACTERIZATION	\$2,692,052	\$359,658	\$1,633,239	53.52%	\$4,684,949
4.2.06.01	-----AIRLOCK - GENERAL CONDITIONS	\$631,505	\$84,369	\$383,127	53.52%	\$1,099,001
4.2.06.02	-----AIRLOCK - SITEWORK	\$21,914	\$2,928	\$13,295	53.52%	\$38,137
4.2.06.03	-----AIRLOCK - CONCRETE	\$81,083	\$10,833	\$49,192	53.52%	\$141,109
4.2.06.05	-----AIRLOCK - METALS	\$630,246	\$84,201	\$382,364	53.52%	\$1,096,810
4.2.06.09	-----AIRLOCK - FINISHES	\$13,510	\$1,805	\$8,196	53.52%	\$23,511
4.2.06.13	-----AIRLOCK - SPECIAL CONSTRUCTION	\$715,528	\$95,595	\$434,103	53.52%	\$1,245,226
4.2.06.15	-----AIRLOCK - MECHANICAL	\$358,708	\$47,923	\$217,624	53.52%	\$624,256
4.2.06.15.01	-----AIRLOCK - HVAC	\$256,703	\$34,295	\$155,739	53.52%	\$446,737
4.2.06.15.02	-----AIRLOCK - FIRE PROTECTION	\$45,736	\$6,110	\$27,747	53.52%	\$79,593
4.2.06.15.03	-----AIRLOCK - PLANT AIR	\$8,670	\$1,158	\$5,260	53.52%	\$15,088
4.2.06.15.04	AIRLOCK - BREATHING AIR	\$47,600	\$6,359	\$28,878	53.52%	\$82,838
4.2.06.16	-----AIRLOCK - ELECTRICAL	\$239,557	\$32,005	\$145,336	53.52%	\$416,898
4.2.06.16.01	AIRLOCK - GENERAL FACILITIES ELECTRICAL	\$159,630	\$21,327	\$96,846	53.52%	\$277,802
4.2.06.16.03	-----AIRLOCK - MONITORING AND CONTROLS	\$37,613	\$5,025	\$22,819	53.52%	\$65,457
4.2.06.16.04	-----AIRLOCK - CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION	\$36,534	\$4,881	\$22,165	53.52%	\$63,580
4.2.06.16.05	AIRLOCK - CCTV MONITORING SYSTEM	\$5,780	\$772	\$3,507	53.52%	\$10,059
4.2.01	----OFFICE/RESTROOM AREAS	\$541,921	\$73,202	\$332,418	53.52%	\$953,541
6.0	TESTING & TURNOVER	\$17,497,093	\$2,813,533	\$17,154,719	84.46%	\$37,465,344
6.1	--TESTING AND TURNOVER PLANNING	\$284,306	345,716	\$278,523	84.40%	\$608,546
6.2	--S. O. TESTING	\$7,834,052	31,259,716	\$7,688,246	84.54%	\$16,782,013
6.2.01	—S. O. TESTING	\$4,264,595	\$685,141	\$4,177,844	84.40%	\$9,128,185
6.2.02	—TRIAL BURN	\$3,569,451	\$590,031	\$3,510,402	84.40%	\$7,669,890

INEEL

Project Summary Report

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Level</u>	<u>Description</u>	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Contingency</u>	<u>Contingency %</u>	<u>TOTAL</u>
6.3	--ORR SUPPORT	\$312,737	\$50,288	\$306,375	84.40%	\$669,400
6.4	--FACILITY ACCEPTANCE REVIEW	\$213,230	\$34,287	\$208,892	84.40%	\$456,409
6.5	--RADIOLOGICAL CONTROL SUPPORT	\$156,368	\$25,144	\$153,188	84.40%	\$334,700
6.6	--OPERATOR TRAINING	\$2,843,063	\$457,165	\$2,785,229	84.40%	\$6,085,451
6.7	--OPERATING PROCEDURES	\$625,414	\$100,576	\$612,150	84.40%	\$1,338,801
6.8	--START-UP COORDINATION	\$184,799	\$29,716	\$181,040	84.40%	\$395,555
6.9	-- SPARES	\$5,043,063	\$810,925	\$4,940,416	84.40%	\$10,794,464
7.0	PROJECT MANAGEMENT	\$62,793,785	\$1,368,935	\$6,867,252	48.49%	\$21,029,972
<hr/>						
Total MELT ALL WITH TDF		\$260,699,059	\$26,118,716	\$176,425,380	61.51%	\$463,243,156

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage 111 Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>1.01 ENVIRONMENTAL</u>												
Memo: Percentage of construction and procurement costs based on detailed input from the project team for the LCB effort, OU 7-10 PIT-9 STAGE 111- LCB, estimate # 5974-1. Detailed input was back-calculated to arrive at a representative percentage of total construction and procurement costs. That percentage was applied to this estimated construction and procurement costs.												
	ENVIRONMENTAL					U.C. per \$						
			142,153,165.00	\$	0		\$0	\$0	\$0	\$0	\$8,941,434	\$8,941,434
	Subtotal						\$0	\$0	\$0	\$0	\$8,941,434	\$8,941,434
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads					0.00%	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$0,941,434
	Escalation						\$0	\$0	\$0	\$0	\$725,150	\$725,150
	Contingency						\$0	\$0	\$0	\$0	\$7,001,145	\$7,001,145
—Total	1.01 ENVIRONMENTAL				0		\$0	\$0	\$0	\$0	\$16,667,730	\$16,667,730

1.02 SAFETY ANALYSIS

Memo: Percentage of construction and procurement costs based on detailed input from the project team for the LCB effort, OU 7-10 PIT-9 STAGE III- LCB, estimate # 5974-1. Detailed input was back-calculated to arrive at a representative percentage of total construction and procurement costs. That percentage was applied to this estimated construction and procurement costs.

	SAFETY ANALYSIS					U.C. per \$						
			142,153,165.00	\$	0		\$0	\$0	\$0	\$0	\$1,449,962	\$1,449,962
	Subtotal						\$0	\$0	\$0	\$0	\$1,449,962	\$1,449,962
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads					0.00%	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$1,449,962
	Escalation						\$0	\$0	\$0	\$0	\$117,592	\$117,592
	Contingency						\$0	\$0	\$0	\$0	\$1,135,321	\$1,135,321
--Total	1.02 SAFETY ANALYSIS				0		\$0	\$0	\$0	\$0	\$2,702,875	\$2,702,075

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
1.03 SAFETY & HEALTH												
Memo: Percentage of construction and procurement costs based on detailed input from the project team for the LCB effort, OU 7-10 PIT-9 STAGE III LCB, estimate# 5974-1. Detailed input was back-calculated to arrive at a representative percentage of total construction and procurement costs. That percentage was applied to this estimated construction and procurement costs.												
	SAFETY & HEALTH	U.C. per \$	142,153,165.00	\$	0		\$0	\$0	\$0	\$0	0.018	0.018
											\$2,601,403	\$2,601,403
<hr/>												
	Subtotal						\$0	\$0	\$0	\$0	\$2,601,403	\$2,601,403
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
<hr/>												
	Subtotal Estimate											\$2,601,403
	Escalation						\$0	\$0	\$0	\$0	\$210,974	\$210,974
	Contingency						\$0	\$0	\$0	\$0	\$2,036,899	\$2,036,899
<hr/>												
—Total	1.03 SAFETY & HEALTH				0		\$0	\$0	\$0	\$0	\$4,049,276	\$4,049,276
<hr/>												
1.04 FIRE PROTECTION												
Memo: Percentage of construction and procurement costs based on detailed input from the project team for the LCB effort, OU 7-10 PIT-9 STAGE III LCB, estimate# 5974-1. Detailed input was back-calculated to arrive at a representative percentage of total construction and procurement costs. That percentage was applied to this estimated construction and procurement costs.												
	FIRE PROTECTION	U.C. per \$	142,153,165.00	\$	0		\$0	\$0	\$0	\$0	0.002	\$213,230
											\$213,230	\$213,230
<hr/>												
	Subtotal						\$0	\$0	\$0	\$0	\$213,230	\$213,230
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
<hr/>												
	Subtotal Estimate											\$213,230
	Escalation						\$0	\$0	\$0	\$0	\$17,293	\$17,293
	Contingency						\$0	\$0	\$0	\$0	\$166,959	\$166,959
<hr/>												
—Total	1.04 FIRE PROTECTION				0		\$0	\$0	\$0	\$0	\$397,402	\$397,482

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Aostad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
1.05 RADIOLOGICAL CONTROLS												
Memo: Percentage of construction and procurement costs based on detailed input from the project team for the LCB effort, OU 7-10 PIT-9 STAGE 111- LCB, estimate # 5974-1. Detailed input was back-calculated to arrive at a representative percentage of total construction and procurement costs. That percentage was applied to this estimated construction and procurement costs.												
		U.C. per \$										
	RADIOLOGICAL CONTROLS	142,153,165.00	\$		0		\$0	\$0	\$0	\$0	\$781,042	5781,842
Subtotal							\$0	\$0	\$0	\$0	\$781,842	\$781,842
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEU Subcontractor Overheads		0.00%					\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$781,842
Escalation							\$0	\$0	\$0	\$0	\$63,407	\$63,407
Contingency							\$0	\$0	\$0	\$0	\$612,183	\$612,183
— Total	1.05 RADIOLOGICAL CONTROLS				0		\$0	\$0	\$0	\$0	\$1,457,433	\$1,457,433

1.07 EMERGENCY PLANNING

Memo: Percentage of construction and procurement costs based on detailed input from the project team for the LCB effort, OU 7-10 PIT-9 STAGE 111- LCB, estimate # 5974-1. Detailed input was back-calculated to arrive at a representative percentage of total construction and procurement costs. That percentage was applied to this estimated construction and procurement costs.

		U.C. per \$										
	EMERGENCY PLANNING	142,153,165.00	\$		0		\$0	\$0	\$0	\$0	\$28,431	\$28,431
Subtotal							\$0	\$0	\$0	\$0	\$28,431	\$28,431
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEU Subcontractor Overheads		0.00%					\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$28,431
Escalation							\$0	\$0	\$0	\$0	\$2,306	\$2,306
Contingency							\$0	\$0	\$0	\$0	\$22,261	\$22,261
— Total	1.07 EMERGENCY PLANNING				0		\$0	\$0	\$0	\$0	\$52,998	\$52,998

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
1.08 SAFEGUARDS & SECURITY												
Memo: Percentage of construction and procurement costs based on detailed input from the project team for the LCB effort, OU 7-10 PIT-9 STAGE III - LCB, estimate # 5974-1. Detailed input was backcalculated to arrive at a representative percentage of total construction and procurement costs. That percentage was applied to this estimated construction and procurement costs.												
		U.C. per \$										
	SAFEGUARDS & SECURITY	142,153,165.00	\$		0		\$0	\$0	\$0	\$0	\$42,646	\$42,646
Subtotal							\$0	\$0	\$0	\$0	\$42,646	\$42,646
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractor Overheads		0.00%					\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$42,646
Escalation							\$0	\$0	\$0	\$0	\$3,459	\$3,459
Contingency							\$0	\$0	\$0	\$0	\$33,392	\$33,392
—Total 1.08 SAFEGUARDS & SECURITY					0		\$0	\$0	\$0	\$0	\$79,496	\$79,496
1.09 QUALITY												
Memo: Percentage of construction and procurement costs based on detailed input from the project team for the LCB effort, OU 7-10 PIT-9 STAGE III - LCB, estimate # 5974-1. Also considered were percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000. Where large discrepancies occurred, an average of the two percentages was applied here.												
		U.C. per \$										
	QUALITY	142,153,165.00	\$		0		\$0	\$0	\$0	\$0	\$4,264,595	\$4,264,595
Subtotal							\$0	\$0	\$0	\$0	\$4,264,595	\$4,264,595
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractor Overheads		0.00%					\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$4,264,595
Escalation							\$0	\$0	\$0	\$0	\$345,859	\$345,859
Contingency							\$0	\$0	\$0	\$0	\$3,339,179	\$3,339,179
—Total 1.09 QUALITY					0		\$0	\$0	\$0	\$0	\$7,949,633	\$7,949,633

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Melt all with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEV**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
2.01 CONCEPTUAL DESIGN												
Memo: Percentage of construction and procurement costs based on detailed input from the project team for the LCB effort, OU 7-10 PIT-9 STAGEIII - LCB, estimate# 5974-1 . Also considered were percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International. December, 2000. Where large discrepancies occurred, an average of the two percentages was applied here.												
	CONCEPTUAL DESIGN EFFORT	U.C. per \$	142,153,165.00	\$	0		\$0	\$0	\$0	\$5,686,127	\$0	\$5,686,127
<hr/>												
	Subtotal						\$0	\$0	\$0	\$5,686,127	\$0	\$5,686,127
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
<hr/>												
	Subtotal Estimate											\$5,686,127
	Escalation						\$0	\$0	\$0	\$147,839	\$0	\$147,839
	Contingency						\$0	\$0	\$0	\$3,909,794	\$0	\$3,909,794
<hr/>												
— Total 2.01 CONCEPTUAL DESIGN					0		\$0	\$0	\$0	\$9,743,760	\$0	\$9,743,760

2.02 PRELIMINARY DESIGN

Memo: Percentage of construction and procurement costs based on detailed input from the project team for the LCB effort, **OU 7-10 PIT-9 STAGE III** - LCB, estimate # **5974-1**. Also considered were percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000. Where large discrepancies occurred, an average of the two percentages was applied here.

	PRELIMINARY DESIGN	U.C. per \$	142,153,165.00	\$	0			\$0	\$0	\$0	0.06	\$8,529,190	\$0	\$8,529,190
Subtotal								\$0	\$0	\$0		\$8,529,190	\$0	\$8,529,190
Sales Tax								\$0	\$0	\$0		\$0	\$0	\$0
INEEL/Subcontractor Overheads		0.00%						\$0	\$0	\$0		\$0	\$0	\$0
Subtotal Estimate								\$0	\$0	\$0		\$458,017	\$0	\$8,529,190
Escalation								\$0	\$0	\$0		\$6,023,026	\$0	\$458,017
Contingency								\$0	\$0	\$0		\$0	\$0	\$6,023,026
— Total 2.02 PRELIMINARY DESIGN					0			\$0	\$0	\$0		\$15,010,233	\$0	\$15,010,233

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action
Stage III Project Treatment-Meltall with Thermal Disorption Option**
Project Location: **INEEL-RWMC**
Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
Prepared By: **R.D. ADAMS / S.N. WASLEY**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
2.03 FINAL DESIGN												
<i>Memo: Percentage of construction and procurement costs based on detailed input from the project team for the LCB effort, OU 7-10 PIT-9 STAGE III- LCB, estimate# 5974-1. Also considered were percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000. Where large discrepancies occurred, an average of the two percentages was applied here.</i>												
	FINAL DESIGN	U.C. per \$	142,153,165.00	\$	0		\$0	\$0	\$0	\$0	0.1 \$*,***,***	0.1 \$14,215,317
	Subtotal						\$0	\$0	\$0	\$0	\$14,215,317	\$14,215,317
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate						\$0	\$0	\$0	\$0		\$14,215,317
	Escalation						\$0	\$0	\$0	\$0	\$1,152,862	\$1,152,862
	Contingency						\$0	\$0	\$0	\$0	\$10,299,410	\$10,299,410
— Total 2.03 FINAL DESIGN					0		\$0	\$0	\$0	\$0	\$25,667,589	\$25,667,589

2.04 TRANSURANIC REPORTING SYSTEM (TRIPS)

	TRIPS DEVELOPMENT	U.C. per LS	1.00	LS	0		\$0	\$0	\$0	\$0	16600000 \$*,***,***	16600000 \$16,600,000
<i>Memo: Based on input from B. L. Peterson of historic costs incurred in the development of the Transuranic Reporting System for the 3100 Cubic Meter project. Adjustments were made to remove costs in support of operations.</i>												
	Subtotal						\$0	\$0	\$0	\$0	\$16,600,000	\$16,600,000
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate						\$0	\$0	\$0	\$0		\$16,600,000
	Escalation						\$0	\$0	\$0	\$0	\$1,346,260	\$1,346,260
	Contingency						\$0	\$0	\$0	\$0	\$12,027,183	\$12,027,183
— Total 2.04 TRANSURANIC REPORTING SYSTEM (TRIPS)					0		\$0	\$0	\$0	\$0	\$29,973,443	\$29,973,443

3.1 PROCUREMENT MANAGEMENT

	PROCUREMENT SUPPORT	U.C. per \$	142,153,165.00	\$	0		\$0	\$0	\$0	\$0	0.016 \$2,302,881	0.016 \$2,302,881
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DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
3.1 PROCUREMENT MANAGEMENT												
	Subtotal							\$0	\$0	\$0	\$0	\$2,302,881
	Sales Tax							\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractor Overheads	0.00%						\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$2,302,881
	Escalation							\$0	\$0	\$0	\$186,764	\$186,764
	Continaencv							\$0	\$0	\$0	\$1,505,237	\$1,505,237
— Total	3.1 PROCUREMENT MANAGEMENT				0			\$0	\$0	\$0	\$3,994,882	\$3,994,882

3.2.01.01 WRPF EQUIPMENT

		<i>U.C. per EA</i>						0	0	92000	0	0	92000
	Sorting table walking floor		6.00	EA	0			\$0	\$0	\$552,000	\$0	\$0	\$552,000
Memo: Based on a 6/24/03 quote from Keith Walking Floor Systems. Copy in estimate file.													
		<i>U.C. per EA</i>						0	0	513000	0	0	513000
	tbd -box dumper or walking floor		1.00	EA	0			\$0	\$0	\$513,000	\$0	\$0	\$513,000
Memo: Assume similar to above (4 sections only) with a heavy stainless steel chute housing. See basis worksheet in estimate file.													
		<i>U.C. per EA</i>						0	0	89714	0	0	89714
	Sorting Deck Soils Trough Hopper		1.00	EA	0			\$0	\$0	\$89,714	\$0	\$0	\$89,714
Memo: See basis worksheet in estimate file.													
		<i>U.C. per EA</i>						0	0	434229	0	0	434229
	Sorting Deck Bridge Crane 7.5 TON		1.00	EA	0			\$0	\$0	\$434,229	\$0	\$0	\$434,229
Memo: 2000 quote from PaR. Escalated and site-adjusted. See basis worksheet in estimate file.													
		<i>U.C. per EA</i>						0	0	268000	0	0	268000
	Sorting Deck Sorting Arm 2 TON		3.00	EA	0			\$0	\$0	\$804,000	\$0	\$0	\$804,000
Memo: 7/1/2003 quote from Caterpillar. See estimate file.													
		<i>U.C. per EA</i>						0	0	450000	0	0	450000
	Sorting deck Soil Collection Conveyor		1.00	EA	0			\$0	\$0	\$450,000	\$0	\$0	\$450,000
Memo: 6/26/03 Jervis B. Webb Company quote for a 130 conveyor. Used \$3750/lf. as basis for all conveyors. See estimate file.													

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage 111 Project Treatment-Melt all with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>9.2.01.01 WRPf EQUIPMENT</u>												
						<i>U.C. per EA</i>						
	Soil Screen Feed Conveyor		1.00	EA	0		0	0	485000	0	0	485000
	Memo: 6/26/03 Jervis B. Webb Company quote for a 130 conveyor. Used \$3750/lf. as basis for all conveyors. See estimate file.											
	Soil Screen Enclosure		1.00	EA	0		0	0	4694976	0	0	4694976
	Soil Screen		1.00	EA	0		0	0	50347	0	0	50347
	Memo: See estimate file.											
	Soil Screen Maintenance Crane 5 TON		1.00	EA	0		0	0	264213	0	0	264213
	Memo: 9/2000 PaR quote with an allowance for a motorized hook. See estimate file.											
	Shredder Feed Conveyor		1.00	EA	0		0	0	485000	0	0	485000
	Oversize Mat'l Xfer Conveyor		1.00	EA	0		0	0	112500	0	0	112500
	Oversize Mat'l Enclosure		1.00	EA	0		0	0	9345600	0	0	9345600
	Shear Feed Conveyor		1.00	EA	0		0	0	37500	0	0	37500
	Oversize Mat'l Shear		1.00	EA	0		0	0	500000	0	0	500000
	Sizing Cell Crane 5 TON		1.00	EA	0		0	0	264213	0	0	264213
	Shear Discharge Conveyor		1.00	EA	0		0	0	18750	0	0	18750
	Sized Mat'l Output Station		1.00	EA	0		0	0	100700	0	0	100700
	Memo: 9/2000 quote from Engineered Conveyors, Inc., escalated to today. See estimate file.											

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>3.2.01.01 WRPF EQUIPMENT</u>												
	Intact Drum/Specl Matl Xfer Conveyor		1.00	EA	0		0	0	37500	0	0	37500
		<i>U.C. per EA</i>					\$0	\$0	\$37,500	\$0	\$0	\$37,500
	Intact Drum & Special Matl Enclosure		1.00	EA	0		0	0	5000000	0	0	5000000
		<i>U.C. per EA</i>					\$0	\$0	\$5,000,000	\$0	\$0	\$5,000,000
	Memo: As suggested by M. Stacey based on similar arrangement for the 3100 Cubic Meter project. E-mail in estimate file.											
	Intact Drum Handler		1.00	LOT	0		0	0	5000000	0	0	5000000
		<i>U.C. per LOT</i>					\$0	\$0	\$5,000,000	\$0	\$0	\$5,000,000
	Memo: As suggested by M. Stacey based on similar arrangement for the 3100 Cubic Meter project. E-mail in estimate file. Price includes sorting manipulator and drum contents sorting table.											
	Drum Contents Collecting Conveyor		1.00	EA	0		0	0	37500	0	0	37500
		<i>U.C. per EA</i>					\$0	\$0	\$37,500	\$0	\$0	\$37,500
	Special Mat'l Output Station		1.00	EA	0		0	0	100700	0	0	100700
		<i>U.C. per EA</i>					\$0	\$0	\$100,700	\$0	\$0	\$100,700
	Container Assay Unit		3.00	EA	0		0	0	3500000	0	0	3500000
		<i>U.C. per EA</i>					\$0	\$0	\$10,500,000	\$0	\$0	\$10,500,000
	Memo: Cost were based on information received from BNFL Instruments Physics Group Lead (E-mail 6-30-03), included in estimating file.											
	Drum Contents Xfer Conveyor		1.00	EA	0		0	0	37500	0	0	37500
		<i>U.C. per EA</i>					\$0	\$0	\$37,500	\$0	\$0	\$37,500
	Soil Screen Product Xfer conveyor		1.00	EA	0		0	0	337500	0	0	337500
		<i>U.C. per EA</i>					\$0	\$0	\$337,500	\$0	\$0	\$337,500
	Soil Screen Rejects Xfer conveyor		1.00	EA	0		0	0	262500	0	0	262500
		<i>U.C. per EA</i>					\$0	\$0	\$262,500	\$0	\$0	\$262,500
	Shredder Enclosure		1.00	EA	0		0	0	360076	0	0	360076
		<i>U.C. per EA</i>					\$0	\$0	\$360,076	\$0	\$0	\$360,076
	2 Stage Shredder		1.00	EA	0		0	0	1400000	0	0	1400000
		<i>U.C. per EA</i>					\$0	\$0	\$1,400,000	\$0	\$0	\$1,400,000
	Memo: 5/16/2003 quote from SSI Shredding Systems, Inc. See estimate file.											
	Shredded Waste Xfer conveyor		1.00	EA	0		0	0	167500	0	0	167500
		<i>U.C. per EA</i>					\$0	\$0	\$187,500	\$0	\$0	\$187,500

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contract</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equip</u>	<u>Dment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
3.2.01.01 WRPF EQUIPMENT													
	Shredded Waste Packaging Glove Box		1.00	EA	0		0	0	0	993933	0	0	993933
	Memo: Based on two GEM project Packaging Glovebox Systems.						\$0	\$0	\$0	\$993,933	\$0	\$0	\$993,933
	Drum Filling Conveyor		2.00	EA	0		0	0	0	1300000	0	0	1300000
	Memo: Price by engineering						\$0	\$0	\$0	\$2,600,000	\$0	\$0	\$2,600,000
	Shredded Waste Output Station		2.00	EA	0		0	0	0	100700	0	0	100700
							\$0	\$0	\$0	\$201,400	\$0	\$0	\$201,400
	Shredded Waste GB Maintenance crane 1TON		1.00	EA	0		0	0	0	167971	0	0	167971
	Memo: 4/25/2003 quote from American Crane plus allowance for motorized hook rotator and site factor.						\$0	\$0	\$0	\$167,971	\$0	\$0	\$167,971
	Soil Hopper Enclosure		1.00	EA	0		0	0	0	5588409	0	0	5588409
							\$0	\$0	\$0	\$5,588,409	\$0	\$0	\$5,588,409
	Soil Storage Feed Conveyor		1.00	EA	0		0	0	0	37500	0	0	37500
							\$0	\$0	\$0	\$37,500	\$0	\$0	\$37,500
	Soil Storage Bin		2.00	EA	0		0	0	0	10000	0	0	10000
	Memo: Allowance.						\$0	\$0	\$0	\$20,000	\$0	\$0	\$20,000
	Soil Storage Bin Activator		2.00	EA	0		0	0	0	8777	0	0	8777
	Memo: From Richardson, 100-35, pg. 3-4, with adjustments for stainless steel construction, escalation and site factor						\$0	\$0	\$0	\$17,554	\$0	\$0	\$17,554
	Soil Storage Bin Discharge Conveyor		2.00	EA	0		0	0	0	150000	0	0	150000
							\$0	\$0	\$0	\$300,000	\$0	\$0	\$300,000
	Assay Systems feed conveyor		1.00	EA	0		0	0	0	30000	0	0	30000
							\$0	\$0	\$0	\$30,000	\$0	\$0	\$30,000
	Assay Feed Spreader #1		2.00	EA	0		0	0	0	18285	0	0	18285
							\$0	\$0	\$0	\$36,570	\$0	\$0	\$36,570

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
3.2.01.01 WRPF EQUIPMENT												
	Soil Assay System #2		2.00	EA	0				1000000			1000000
	Memo: 6/30/2003 quote from BNFL Instruments. Conveyorized Survey Monitor as described in note 2 of their quote. See estimate file.											
	Assayed Soil Diverting Conveyor		1.00	EA	0				112500			112500
	nonTRU Soil Xfer Conveyor		1.00	EA	0				168750			168750
	TRU Soil Xfer Conveyor		1.00	EA	0				168750			168750
	nonTRU Soil Packaging GB		1.00	EA	0				233026			233026
	nonTRU Soil Packaging GB		1.00	EA	0				233026			233026
	TRU Soil Packaging GB		1.00	EA	0				233026			233026
	TRU Soil Packaging GB		1.00	EA	0				233026			233026
	CONTAINER HANDLING TRUCK (1000 LBS)		5.00	EA	0				3000			3000

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>3.2.01.01 WRPf EQUIPMENT</u>												
	TRUPACT LOADING STATION- INCL. LOADING CRANE		1.00	EA	0		0	0	648000	0	0	648000
							\$0	\$0	\$648,000	\$0	\$0	\$648,000
<hr/>												
	Subtotal						\$0	\$0	\$56,500,959	\$0	\$0	\$56,500,959
	Sales Tax						\$0	\$0	\$3,390,058	\$0	\$0	\$3,390,058
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
<hr/>												
	Subtotal Estimate											\$59,891,017
	Escalation						\$0	\$0	\$4,857,161	\$0	\$0	\$4,857,161
	Contingency						\$0	\$0	\$39,146,696	\$0	\$0	\$39,146,696
<hr/>												
--Total 3.2.01.01 WRPf EQUIPMENT					0		\$0	\$0	\$**, **, **	\$0	\$0	\$**, **, **

3.2.01.02 WRPf-HVAC EQUIPMENT

Memo: *Costs for the majority of the HVAC equipment were obtained from the BBWI Engineering group that contacted a local HVAC vendor that provided budgetary cost information based on preliminary design information.*

	1000kW HEATER SECTION (PREHEAT)		1.00	EA	0		0	0	5000	0	0	5000
							\$0	\$0	\$5,000	\$0	\$0	\$5,000
<hr/>												
	INLET HEPA FILTER TRAIN 6X4 (1,500 CFM/ FILTER)		2.00	EA	0		0	0	160000	0	0	160000
							\$0	\$0	\$320,000	\$0	\$0	\$320,000
<hr/>												
	OUTLET HEPA FILTER TRAIN 6X4 (1,500CFM/ FILTER)		2.00	EA	0		0	0	390000	0	0	390000
							\$0	\$0	\$780,000	\$0	\$0	\$780,000
<hr/>												
	MAIN EXHAUST FAN (62,500 CFM- 300 HP)		1.00	EA	0		0	0	23000	0	0	23000
							\$0	\$0	\$23,000	\$0	\$0	\$23,000
<hr/>												
	BACK-UP EXHAUST FAN (11,000CFM-200 HP)		1.00	EA	0		0	0	11000	0	0	11000
							\$0	\$0	\$11,000	\$0	\$0	\$11,000
<hr/>												
	RADIANT HEATERS 13.5 KW		18.00	EA	0		0	0	950	0	0	950
							\$0	\$0	\$17,100	\$0	\$0	\$17,100

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
3.2.01.02 WRPV-HVAC EQUIPMENT												
<i>Memo: Costs for the majority of the HVAC equipment were obtained from the BBWI Engineering group that contacted a local HVAC vendor that provided budgetary cost information based on preliminary design information.</i>												
	COMPUTER ROOM AC UNIT (10 TON GLYCOL UNIT)	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	32000 \$32,000	0 \$0	0 \$0	32000 \$32,000
Subtotal							\$0	\$0	\$1,188,100	\$0	\$0	\$1,188,100
Sales Tax							\$0	\$0	\$71,286	\$0	\$0	\$71,286
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$1,259,386
Escalation							\$0	\$0	\$102,136	\$0	\$0	
Contingency							\$0	\$0	\$823,175	\$0	\$0	\$823,175
— Total 3.2.01.02 WRPV-HVAC EQUIPMENT					0		\$0	\$0	\$2,184,697	\$0	\$0	\$2,184,697
3.2.01.03 WRPV I&C PROCUREMENT												
	INSTRUMENTS & CONTROLS	<i>U.C. per LS</i>	1.00	LS	0		0 \$0	0 \$0	160900 \$160,900	0 \$0	0 \$0	160900 \$160,900
Subtotal							\$0	\$0	\$160,900	\$0	\$0	\$160,900
Sales Tax							\$0	\$0	\$9,654	\$0	\$0	\$9,654
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$170,554
Escalation							\$0	\$0	\$13,832	\$0	\$0	\$13,832
Contingency							\$0	\$0	\$111,480	\$0	\$0	\$111,480
— Total 3.2.01.03 WRPV I&C PROCUREMENT					0		\$0	\$0	\$295,866	\$0	\$0	\$295,866

3.2.02.01 TDF- THERMAL DESORBER FEED SYSTEM

	Wet Soil Feed Hopper w/ isolation slide valve	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	45713 \$45,713	0 \$0	0 \$0	45713 \$45,713
Memo: Scaled down from 9/2000 quote from Douglas Scientific. Inc.. Includes slide isolation valve.												

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Melta//with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
3.2.02.01 TDF- THERMAL DESORBER FEED SYSTEM												
		<i>U.C. per EA</i>					<i>0</i>	<i>0</i>	<i>22552</i>	<i>0</i>	<i>0</i>	<i>22552</i>
	Metering feed valve		1.00	EA	0		\$0	\$0	\$22,552	\$0	\$0	\$22,552
	Memo: From Richardson, 100-45, pg. 4, assuming model 203-130.											
		<i>U.C. per EA</i>					<i>0</i>	<i>0</i>	<i>8388</i>	<i>0</i>	<i>0</i>	<i>8388</i>
	Rotary Screw Auger		1.00	EA	0		\$0	\$0	\$8,388	\$0	\$0	\$8,388
	Memo: From Richardson.											
Subtotal							\$0	\$0	\$76,653	\$0	\$0	\$76,653
Sales Tax							\$0	\$0	\$4,599	\$0	\$0	\$4,599
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$81,252
Escalation							\$0	\$0	\$6,590	\$0	\$0	\$6,590
Contingency							\$0	\$0	\$53,109	\$0	\$0	\$53,109
— Total 3.2.02.01 TDF- THERMAL DESORBER FEED SYSTEM					0		\$0	\$0	\$140,951	\$0	\$0	\$140,951

3.2.02.02 TDF-SWEEP GAS SYSTEM

		<i>U.C. per EA</i>					<i>0</i>	<i>0</i>	<i>25111</i>	<i>0</i>	<i>0</i>	<i>25111</i>
	Water Flow Control Valve		1.00	EA	0		\$0	\$0	\$25,111	\$0	\$0	\$25,111
	Memo: From Richardson.											
		<i>U.C. per EA</i>					<i>0</i>	<i>0</i>	<i>17965</i>	<i>0</i>	<i>0</i>	<i>17965</i>
	Steam Producing Boiler		1.00	EA	0		\$0	\$0	\$17,965	\$0	\$0	\$17,965
	Memo: From Means.											
		<i>U.C. per EA</i>					<i>0</i>	<i>0</i>	<i>4224</i>	<i>0</i>	<i>0</i>	<i>4224</i>
	Flow Control Valve		1.00	EA	0		\$0	\$0	\$4,224	\$0	\$0	\$4,224
		<i>U.C. per EA</i>					<i>0</i>	<i>0</i>	<i>33047</i>	<i>0</i>	<i>0</i>	<i>33047</i>
	Propane Tank		1.00	EA	0		\$0	\$0	\$33,047	\$0	\$0	\$33,047
	Memo: From Richardson.											

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage 111 Project Treatment-Melt all with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
3.2.02.02 TDF-SWEEP GAS SYSTEM												
	Propane Evaporator						0	0	9360	0	0	9360
	Memo: Based on a recent quote from V-1 Propane.		1.00	EA	0		\$0	\$0	\$9,360	\$0	\$0	\$9,360
	Subtotal						\$0	\$0	\$89,707	\$0	\$0	\$89,707
	Sales Tax						\$0	\$0	\$5,382	\$0	\$0	\$5,382
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate						\$0	\$0	\$7,712	\$0	\$0	\$95,089
	Escalation						\$0	\$0	\$7,712	\$0	\$0	\$7,712
	Contingency						\$0	\$0	\$62,154	\$0	\$0	\$62,154
--Total 3.2.02.02 TDF-SWEEP GAS SYSTEM					0		\$0	\$0	\$164,955	\$0	\$0	\$164,955

3.2.02.03 TDF-ROTARY SCREW THERMAL DESORBER

	Thermal Desorber						0	0	241104	0	0	241104
	Memo: 7/2/2003 quote from UNICO Services, Inc.		1.00	EA	0		\$0	\$0	\$241,104	\$0	\$0	\$241,104
	Fluid Reservoir						0	0	265	0	0	265
			1.00	EA	0		\$0	\$0	\$265	\$0	\$0	\$265
	Hydraulic Fluid						0	0	142	0	0	142
			1.00	EA	0		\$0	\$0	\$142	\$0	\$0	\$142
	Heat Exchanger						0	0	14525	0	0	14525
			1.00	EA	0		\$0	\$0	\$14,525	\$0	\$0	\$14,525
	Pump						0	0	2200	0	0	2200
			1.00	EA	0		\$0	\$0	\$2,200	\$0	\$0	\$2,200

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Desorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
3.2.02.03 TDF-ROTORY SCREW THERMAL DESORBER												
	Flow Control Valve	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	4224 \$4,224	0 \$0	0 \$0	4224 \$4,224
Subtotal							\$0	\$0	\$262,460	\$0	\$0	\$262,460
Sales Tax							\$0	\$0	\$15,748	\$0	\$0	\$15,748
INEEUSubcontractor Overheads							0.00% \$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$278,208
Escalation							\$0	\$0	\$22,563	\$0	\$0	\$22,563
Contingency							\$0	\$0	\$181,845	\$0	\$0	\$181,845
— Total 3.2.02.03 TDF-ROTORY SCREW THERMAL DESORBER					0		\$0	\$0	\$482,616	\$0	\$0	\$402,616

3.2.02.04 TDF-DESORBER SOIL COLLECTION SYSTEM

	Slide Isolation Valve	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	16386 \$16,386	0 \$0	0 \$0	16386 \$16,386
	Cooling Screw Auger	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	135000 \$135,000	0 \$0	0 \$0	135000 \$135,000
Memo: 7/2/2003 quote from UNICO Services. Inc.												
	Feed Auger	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	8388 \$8,388	0 \$0	0 \$0	8388 \$8,388
	Dry Soil Feed Hopper, including isolation slide valve	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	22597 \$22,597	0 \$0	0 \$0	22597 \$22,597
	Rotary Screw Auger	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	8388 \$8,388	0 \$0	0 \$0	8388 \$8,388

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Desorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
3.2.02.04 TDF-DESORBER SOIL COLLECTION SYSTEM												
	Packaging Glovebox		1.00	EA	0		0	0	480000	0	0	480000
	Memo: Cost based on the GEM Project glovebox @ approx. \$40,000/running ft.											
	Subtotal						\$0	\$0	\$670,759	\$0	\$0	\$670,759
	Sales Tax						\$0	\$0	\$40,246	\$0	\$0	\$40,246
	INEEUSubcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$711,005
	Escalation						\$0	\$0	\$57,662	\$0	\$0	\$57,662
	Contingency						\$0	\$0	\$464,735	\$0	\$0	\$464,735
— Total 3.2.02.04 TDF-DESORBER SOIL COLLECTIONSYSTEM					0		\$0	\$0	\$1,233,402	\$0	\$0	\$1,233,402

3.2.02.05 TDF- WATER & VOC COLLECTION & PROCESS

	Tube and Shell Condenser		1.00	EA	0		0	0	31085	0	0	31085
	Memo: From Richardson.											
	Carbon Bed		2.00	EA	0		0	0	3637	0	0	3637
	Memo: 5/2001 quote on GAC material and 1997 quote from Seattle Boiler Works, Inc. for vessel. Scaled, escalated, and adjusted with site factor.											
	Off Gas Filter		1.00	EA	0		0	0	15000	0	0	15000
	Memo: 1000 sfm (1 X 1).											
	Isolation Valve (Sol.)		1.00	EA	0		0	0	4224	0	0	4224
	Water Pump		2.00	EA	0		0	0	4000	0	0	4000
	Organic Separator		1.00	EA	0		0	0	34742	0	0	34742
	Memo: Assume similar to Oil/Water Coalescer in Richardson, 100-426, pg. 1-2.											

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
3.2.02.05 TDF- WATER & VOC COLLECTION& PROCESS												
	VOC Pump	<i>U.C. per EA</i>	2.00	EA	0		0	0	2200	0	0	2200
							\$0	\$0	\$4,400	\$0	\$0	\$4,400
	Water Pump	<i>U.C. per EA</i>	2.00	EA	0		0	0	2500	0	0	2500
							\$0	\$0	55,000	\$0	\$0	\$5,000
	VOC Storage	<i>U.C. per EA</i>	1.00	EA	0		0	0	3689	0	0	3689
							\$0	50	53,689	\$0	\$0	\$3,689
	VOC Transfer Pump	<i>U.C. per EA</i>	2.00	EA	0		0	0	2200	0	0	2200
							\$0	\$0	\$4,400	\$0	\$0	\$4,400
	Oil absorber	<i>U.C. per EA</i>	1.00	EA	0		0	0	500	0	0	500
							\$0	\$0	\$500	\$0	\$0	\$500
	Carbon Bed	<i>U.C. per EA</i>	1.00	EA	0		0	0	3637	0	0	3637
							\$0	\$0	\$3,637	\$0	\$0	\$3,637
	Carbon Bed	<i>U.C. per EA</i>	1.00	EA	0		0	0	3637	0	0	3637
							\$0	\$0	\$3,637	\$0	\$0	\$3,637
	Carbon Bed	<i>U.C. per EA</i>	1.00	EA	0		0	0	3637	0	0	3637
							\$0	\$0	\$3,637	\$0	\$0	53,637
	Carbon Bed	<i>U.C. per EA</i>	1.00	EA	0		0	0	3637	0	0	3637
							\$0	\$0	\$3,637	\$0	\$0	\$3,637
	Water Evaporator	<i>U.C. per EA</i>	1.00	EA	0		0	0	355358	0	0	355358
							\$0	\$0	5355,358	\$0	\$0	\$355,358
Memo: Based on estimate #2684 for a replacement reheater for the HLLW system.												
	Assist Evaporator	<i>U.C. per EA</i>	1.00	EA	0		0	0	70529	0	0	70529
							\$0	\$0	\$70,529	\$0	\$0	\$70,529
Memo: 5/2001 quote from Climate Technologies Corp. Scaled for larger size.												
	Evaporative cooling Tower	<i>U.C. per EA</i>	1.00	EA	0		0	0	42557	0	0	42557
							\$0	\$0	\$42,557	\$0	\$0	\$42,557
Memo: Based on quote from Carrier on larger model. Scaled down accordingly.												

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Melt all with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>3.2.02.05 TDF- WATER & VOC COLLECTION & PROCESS</u>												
	Cooling water pump		1.00	EA	0		\$0	\$0	\$4,815	\$0	\$0	\$4,815
	Subtotal						\$0	\$0	\$606,121	\$0	\$0	\$606,121
	Sales Tax						\$0	\$0	\$36,367	\$0	\$0	\$36,367
	INEEUSubcontractorOverheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$642,488
	Escalation						\$0	\$0	\$52,106	\$0	\$0	\$52,106
	Contingency						\$0	\$0	\$419,951	\$0	\$0	\$419,951
— Total 3.2.02.05 TDF- WATER & VOC COLLECTION & PROCESS					0		\$0	\$0	\$1,114,545	\$0	\$0	\$1,114,545

3.2.02.06 TDF-HVAC EQUIPMENT

AIR HANDLING UNIT 20,000 CFM (ZONE I AREA)	U C per EA	3.00	EA	0		\$0	\$0	\$30,000	\$0	\$0	\$30,000
275 kw ELECTRIC HEATER (ZONE I AREA)	U.C. per EA	1.00	EA	0		\$0	\$0	\$4,500	\$0	\$0	\$4,500
HEPA FILTER (4 HIGH X 5 WIDE) 20,000 CFM (ZONE I AREA)	U.C. per EA	1.00	EA	0		\$0	\$0	\$300,000	\$0	\$0	\$300,000
EXHAUST FAN 40 HP	U.C. per EA	3.00	EA	0		\$0	\$0	\$75,000	\$0	\$0	\$75,000
HEPA FILTER (1 HIGH X 1 WIDE) 150 CFM (ZONE III AREA)	U.C. per EA	1.00	EA	0		\$0	\$0	\$15,000	\$0	\$0	\$15,000

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEV**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>3.2.02.06 TDF-HVAC EQUIPMENT</u>												
	EXHAUST FAN 1/2HP (ZONE III AREA)	<i>U.C. per EA</i>	3.00	EA	0		0 \$0	0 \$0	4000 \$12,000	0 \$0	0 \$0	4000 \$12,000
Subtotal							\$0	\$0	\$436,500	\$0	\$0	\$436,500
Sales Tax							\$0	\$0	\$26,190	\$0	\$0	\$26,190
INEEL/Subcontractor Overheads							0.00% \$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$462,690
Escalation							\$0	\$0	\$37,524	\$0	\$0	\$37,524
Contingency							\$0	\$0	\$302,429	\$0	\$0	\$302,429
— Total 3.2.02.06 TDF-HVAC EQUIPMENT					0		\$0	\$0	\$802,643	\$0	\$0	\$802,643

3.2.02.07 TDF I&C PROCUREMENT

	INSTRUMENTS& CONTROLS	<i>U.C. per LS</i>	1.00	LS	0		0 \$0	0 \$0	167250 \$167,250	0 \$0	0 \$0	167250 \$167,250
Subtotal							\$0	\$0	\$167,250	\$0	\$0	\$167,250
Sales Tax							\$0	\$0	\$10,035	\$0	\$0	\$10,035
INEEL/Subcontractor Overheads							0.00% \$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$177,285
Escalation							\$0	\$0	\$14,378	\$0	\$0	\$14,378
Contingency							\$0	\$0	\$115,879	\$0	\$0	\$115,879
— Total 3.2.02.07 TDF I&C PROCUREMENT					0		\$0	\$0	\$307,542	\$0	\$0	\$307,542

3.2.04.01 MELTER FEED SYSTEM

	Slide Isolation valve	<i>U.C. per EA</i>	3.00	EA	0		0 \$0	0 \$0	3000 \$9,000	0 \$0	0 \$0	3000 \$9,000
	Slide Isolation valve	<i>U.C. per EA</i>	3.00	EA	0		0 \$0	0 \$0	3000 \$9,000	0 \$0	0 \$0	3000 \$9,000

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with ThermalDisorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
3.2.04.01 MELTER FEED SYSTEM												
	Spray Pump	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	2200 \$2,200	0 \$0	0 \$0	2200 \$2,200
	Sprayer	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	1000 \$1,000	0 \$0	0 \$0	1000 \$1,000
	Slide Isolation valve	<i>U.C. per EA</i>	2.00	EA	0		0 \$0	0 \$0	2000 \$4,000	0 \$0	0 \$0	2000 \$4,000
	Metering Auger feed	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	22552 \$22,552	0 \$0	0 \$0	22552 \$22,552
	Liquid feed tank	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	9722 \$9,722	0 \$0	0 \$0	9722 \$9,722
	Liquid feed pump	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	5242 \$5,242	0 \$0	0 \$0	5242 \$5,242
	Metering Valve	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	4224 \$4,224	0 \$0	0 \$0	4224 \$4,224
	Isolation Valve	<i>U.C. per EA</i>	2.00	EA	0		0 \$0	0 \$0	4224 \$8,448	0 \$0	0 \$0	4224 \$0,448
Subtotal							\$0	\$0	\$75,300	\$0	\$0	\$75,388
Sales Tax							\$0	\$0	\$4,523	\$0	\$0	\$4,523
INEEUSubcontractorOverheads							0.00%	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$79,911
Escalation							\$0	\$0	\$6,481	\$0	\$0	\$6,481
Contingency							\$0	\$0	\$52,233	\$0	\$0	\$52,233
— Total 3.2.04.01 MELTER FEED SYSTEM					0		\$0	\$0	\$138,625	\$0	\$0	\$138,625

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Melt all with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>3.2.04.02 MELTER SYSTEM</u>												
	MELTER SYSTEM	U.C. per	1.00		0		0	0	11400000	0	0	11400000
							\$0	\$0	\$11,400,000	\$0	\$0	\$11,400,000
Memo. Based on proprietary information from three vendors. The existing system prices were for non-TRU applications. Previous unrecorded observations with these vendors indicated that \$11,400,000 was as good an approximation as could be reached without much further detail and development.												
This price includes the following equipment from the equipment list: Primary Chamber, Power Supply, Electrodes, AC-5001&02, V-5010&11, T-5002, P-5003&04, V-5012&13, C-5001, P-5005, H-5001, GS-5001, and scs-5001.												
	Subtotal						\$0	\$0	\$11,400,000	\$0	\$0	\$11,400,000
	Sales Tax						\$0	\$0	\$684,000	\$0	\$0	\$684,000
	INEEVS Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$2,084,000
	Escalation						\$0	\$0	\$980,012	\$0	\$0	\$980,012
	Contingency						\$0	\$0	\$7,898,491	\$0	\$0	\$7,898,491
— Total 3.2.04.02 MELTER SYSTEM					0		\$0	\$0	\$20,962,504	\$0	\$0	\$20,962,504

3.2.04.03 MELTER OFF GAS SYSTEM

Thermal Oxidizer/Secondary combustion Chamber	U.C. per EA	1.00	EA	0		\$0	\$0	200000	\$0	\$0	200000
O2/Fuel Train burner & control	U.C. per EA	1.00	EA	0		\$0	\$0	58000	\$0	\$0	58000
metering valve	U.C. per EA	2.00	EA	0		\$0	\$0	25111	\$0	\$0	25111
Propane tank	U.C. per EA	1.00	EA	0		\$0	\$0	17965	\$0	\$0	17965
Propane Vaporizer	U.C. per EA	1.00	EA	0		\$0	\$0	9360	\$0	\$0	9360

Project Name: ***OU 7-70 Staged Interim Action
Stage III Project Treatment-Meltall with Thermal Desorption Option***
Project Location: ***INEL-RWMC***
Estimate Number: ***5974-2 (2b+3aP)***

3.2.04.04 MELTER DRUM HANDLING										
Conveyor system	U.C. per EA	2.00	EA	0	0	0	9880	0	0	9880
					\$0	\$0	\$19,760	\$0	\$0	\$19,760
Remote drum handling equipment	U.C. per EA	2.00	EA	0	0	0	121900	0	0	121900
Memo Unrecorded observations from previous WGI CSiX/TRU study of 2000.					\$0	\$0	\$243,800	\$0	\$0	\$243,800
Remote drum lid installation equip.	U.C. per EA	1.00	EA	0	0	0	115805	0	0	115805
Memo Unrecorded observations from previous WGI CSiX/TRU study of 2000.					\$0	\$0	\$1 15,805	\$0	\$0	\$1 15,805

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>3.2.04.04 MELTER DRUM HANDLING</u>												
	Drum Weight	<i>U.C. par EA</i>	1.00	EA	0		0 \$0	0 \$0	4340 \$4,340	0 \$0	0 \$0	4340 \$4,340
Subtotal							\$0	\$0	\$383,705	\$0	\$0	\$383,705
Sales Tax							\$0	\$0	\$23,022	\$0	\$0	\$23,022
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$406,727
Escalation							\$0	\$0	\$32,986	\$0	\$0	\$32,986
Contingency							\$0	\$0	\$265,850	\$0	\$0	\$265,850
— Total 3.2.04.04 MELTER DRUM HANDLING					0		\$0	\$0	\$705,563	\$0	\$0	\$705,563

3.2.04.05 MELTER I&C

Melter lid cameras	<i>U.C. par EA</i>	2.00	EA	0		0 \$0	0 \$0	6000 \$12,000	0 \$0	0 \$0	6000 \$12,000
Control Room Equipment	<i>U.C. par EA</i>	1.00	EA	0		0 \$0	0 \$0	100000 \$100,000	0 \$0	0 \$0	100000 \$100,000
Slag collection camera - allow	<i>U.C. per LS</i>	1.00	LS	0		0 \$0	0 \$0	50000 \$50,000	0 \$0	0 \$0	50000 \$50,000

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
3.2.04.05 MELTER I&C												
	INSTRUMENTS& CONTROLS	<i>U.C. per LS</i>	1.00	LS	0		0 \$0	0 \$0	224500 \$224,500	0 \$0	0 \$0	224500 5224,500
Subtotal							\$0	\$0	\$386,500	\$0	\$0	5386,500
Sales Tax							\$0	\$0	\$23,190	\$0	\$0	\$23,190
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$409,690
Escalation							\$0	\$0	\$33,226	\$0	\$0	\$33,226
Contingency							\$0	\$0	\$267,787	\$0	\$0	\$267,787
--Total 3.2.04.05 MELTER I&C					0		\$0	\$0	\$710,702	\$0	\$0	\$710,702

3.2.04.06 MELTER VENTILATION SYSTEM

Memo: *Costs for the majority of the HVAC equipment were obtained from the BBWI Engineering group that contacted a local HVAC vendor that provided budgetary cost information based on preliminary design information.*

Melter facility Zone III HEPA (2x1 housing, 1500 CFM)	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	30000 \$30,000	0 \$0	0 \$0	30000 \$30,000
Melter facility Zone II HEPA (4x4 housing, 80,000 CFM)	<i>U.C. per EA</i>	5.00	EA	0		0 \$0	0 \$0	120000 \$600,000	0 \$0	0 \$0	120000 \$600,000
Melter facility Zone I HEPA (4x4 housing, 32,000 CFM)	<i>U.C. per EA</i>	2.00	EA	0		0 \$0	0 \$0	120000 \$240,000	0 \$0	0 \$0	120000 \$240,000
Melter Facility Zone III exhaust fan-750 CFM	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	1635 \$1,635	0 \$0	0 \$0	1635 \$1,635
Melter Facility Zone III exhaust fan-750 CFM	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	1635 \$1,635	0 \$0	0 \$0	1635 \$1,635
Melter Facility Zone III exhaust fan-750 CFM	<i>U.C. per EA</i>	1.00	EA	0		0 \$0	0 \$0	1635 \$1,635	0 \$0	0 \$0	1635 \$1,635

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage 111 Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

Code	Description	Contractor	Qty	UOM	Hrs	Resource	Labor	EquipDment	Material	Subcontractor	Other	TOTAL
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3.2.04.06 MELTER VENTILATIONSYSTEM

Memo: *Costs for the majority of the HVAC equipment were obtained from the BBWL Engineering group that contacted a local HVAC vendor that provided budgetary cost information based on preliminary design information.*

	U.C. per EA						0	0	47476	0	0	47476
Melter Facility Zone II exhaust fan-40,000 CFM		1.00	EA	0			\$0	\$0	\$47,476	\$0	\$0	\$47,476
	U.C. per EA						0	0	47476	0	0	47476
Melter Facility Zone II exhaust fan-40,000 CFM		1.00	EA	0			\$0	\$0	\$47,476	\$0	\$0	\$47,476
	U.C. per EA						0	0	47476	0	0	47476
Melter Facility Zone II exhaust fan-40,000 CFM		1.00	EA	0			\$0	\$0	\$47,476	\$0	\$0	\$47,476
	U.C. per EA						0	0	18765	0	0	18765
Melter Facility Zone I exhaust fan-16,000 CFM		1.00	EA	0			\$0	\$0	\$18,765	\$0	\$0	\$18,765
	U.C. per EA						0	0	18765	0	0	18765
Melter Facility Zone I exhaust fan-16,000 CFM		1.00	EA	0			\$0	\$0	\$18,765	\$0	\$0	\$18,765
	U.C. per EA						0	0	18765	0	0	18765
Melter Facility Zone I exhaust fan-16,000 CFM		1.00	EA	0			\$0	\$0	\$18,765	\$0	\$0	\$18,765
	U.C. per EA						0	0	30670	0	0	30670
Melter Facility Zone II air handling unit-40,000 CFM		1.00	EA	0			\$0	\$0	\$30,670	\$0	\$0	\$30,670
	U.C. per EA						0	0	30670	0	0	30670
Melter Facility Zone II air handling unit-40,000 CFM		1.00	EA	0			\$0	\$0	\$30,670	\$0	\$0	\$30,670
	U.C. per EA						0	0	30670	0	0	30670
Melter Facility Zone II air handling unit-40,000 CFM		1.00	EA	0			\$0	\$0	\$30,670	\$0	\$0	\$30,670
	U.C. per EA						0	0	8556	0	0	8556
Melter Facility Zone I air handling unit-16,000 CFM		1.00	EA	0			\$0	\$0	\$8,556	\$0	\$0	\$8,556
	U.C. per EA						0	0	8556	0	0	8556
Melter Facility Zone I air handling unit-16,000 CFM		1.00	EA	0			\$0	\$0	\$8,556	\$0	\$0	\$8,556

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Desorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
3.2.04.06 MELTER VENTILATION SYSTEM												
<i>Memo: Costs for the majority of the HVAC equipment were obtained from the BBWL Engineering group that contacted a local HVAC vendor that provided budgetary cost information based on preliminary design information.</i>												
		<i>U.C. per EA</i>					0	0	8556	0	0	8556
	Melter Facility Zone I air handling unit-16,000 CFM		1.00	EA	0		\$0	\$0	\$8,556	\$0	\$0	\$8,556
		<i>U.C. per EA</i>					0	0	1090	0	0	1090
	Melter Facility Zone II air handling unit heater		1.00	EA	0		\$0	\$0	\$1,090	\$0	\$0	\$1,090
		<i>U.C. per EA</i>					0	0	1090	0	0	1090
	Melter Facility Zone II air handling unit heater		1.00	EA	0		\$0	\$0	\$1,090	\$0	\$0	\$1,090
		<i>U.C. per EA</i>					0	0	1090	0	0	1090
	Melter Facility Zone II air handling unit heater		1.00	EA	0		\$0	\$0	\$1,090	\$0	\$0	\$1,090
		<i>U.C. per EA</i>					0	0	1090	0	0	1090
	Melter Facility Zone I air handling unit heater		1.00	EA	0		\$0	\$0	\$1,090	\$0	\$0	\$1,090
		<i>U.C. per EA</i>					0	0	1090	0	0	1090
	Melter Facility Zone I air handling unit heater		1.00	EA	0		\$0	\$0	\$1,090	\$0	\$0	\$1,090
		<i>U.C. per EA</i>					0	0	1090	0	0	1090
	Melter Facility Zone I air handling unit heater		1.00	EA	0		\$0	\$0	\$1,090	\$0	\$0	\$1,090
Subtotal							\$0	\$0	\$1,197,846	\$0	\$0	\$1,197,846
Sales Tax							\$0	\$0	\$71,871	\$0	\$0	\$71,871
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$1,269,717
Escalation							\$0	\$0	\$102,974	\$0	\$0	\$102,974
Contingency							\$0	\$0	\$829,928	\$0	\$0	\$829,928
— Total 3.2.04.06 MELTER VENTILATION SYSTEM					0		\$0	\$0	\$2,202,619	\$0	\$0	\$2,202,619

DETAIL ITEM REPORT

Project Name: ***OU 7-70 Staged Interim Action***
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: ***INEEL-RWMC***
 Estimate Number: ***5974-2 (2b+3aP)***

Client: **S. L. Austad**
Prepared By: **R.D. ADAMS / S.N. WASLEY**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>3.2.04.07 MELTER UTILITIES</u>												
		<i>U.C. per EA</i>					<i>0</i>	<i>0</i>	<i>10185</i>	<i>0</i>	<i>0</i>	<i>10165</i>
	Evaporativecooling Towers		3.00	EA	0		\$0	\$0	\$30,555	\$0	\$0	\$30,555
		<i>U.C. per EA</i>					<i>0</i>	<i>0</i>	<i>3377</i>	<i>0</i>	<i>0</i>	<i>3377</i>
	Cooling water pump		2.00	EA	0		\$0	\$0	\$6,754	\$0	\$0	\$6,754
		<i>U.C. per EA</i>					<i>0</i>	<i>0</i>	<i>20817</i>	<i>0</i>	<i>0</i>	<i>20817</i>
	Facility Air compressor		2.00	EA	0		\$0	\$0	\$41,634	\$0	\$0	\$41,634
		<i>U.C. per EA</i>					<i>0</i>	<i>0</i>	<i>14666</i>	<i>0</i>	<i>0</i>	<i>14666</i>
	20 ton chiller		1.00	EA	0		\$0	\$0	\$14,666	\$0	\$0	\$14,666
Memo: Cost is based on Richardsons Estimatingmanual 2000.												
	Subtotal						\$0	\$0	\$93,609	\$0	\$0	\$93,609
	Sales Tax						\$0	\$0	\$5,617	\$0	\$0	\$5,617
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$99,226
	Escalation						\$0	\$0	\$8,047	\$0	\$0	\$8,047
	Continoency						\$0	\$0	\$64,857	\$0	\$0	\$64,857
— Total 3.2.04.07 MELTER UTILITIES					0		\$0	\$0	\$172,130	\$0	\$0	\$172,130

3.2.06 EQUIPMENT PROCUREMENT (AIRLOCK TO CHARACTERIZATION)

CCTV MONITORING SYSTEM-EQUIPMENT ONLY	U.C. per SF	0	0	6	0	0	6
4,250.00 SF	0	\$0	\$0	\$25,500	\$0	\$0	\$25,500

Memo: This unit cost is based on the GEM project. Assume the same type of equipment and quantities will be required.

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEV**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
3.2.06 EQUIPMENT PROCUREMENT(AIRLOCK TO CHARACTERIZATION)												
	Subtotal							\$0	\$0	\$25,500	\$0	\$25,500
	Sales Tax							\$0	\$0	\$1,530	\$0	\$1,530
	INEEUSubcontractorOverheads	0.00%						\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$27,030
	Escalation							\$0	\$0	\$2,192	\$0	\$2,192
	Contingency							\$0	\$0	\$17,668	\$0	\$17,668
—Total	3.2.06 EQUIPMENT PROCUREMENT(AIRLOCK TO CHARACTERIZATION)				0			\$0	\$0	\$46,090	\$0	\$46,890

3.3 BBWI MATERIAL HANDLING FEE

	PROCUREMENT FEE	U.C. per \$	79,293,447.00	\$	0			\$0	\$0	\$0	\$0	0.12	0.12
								\$0	\$0	\$0	\$0	\$9,515,214	\$9,515,214
	G&A	U.C. per \$	9,515,214.00	\$	0			\$0	\$0	\$0	\$0	0.38	0.38
								\$0	\$0	\$0	\$0	\$3,615,781	\$3,615,781
	Subtotal							\$0	\$0	\$0	\$0	\$13,130,995	\$13,130,995
	Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads	0.00%						\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate												\$13,130,995
	Escalation							\$0	\$0	\$0	\$0	\$1,064,924	\$1,064,924
	Contingency							\$0	\$0	\$0	\$0	\$8,502,841	\$8,582,841
—Total	3.3 BBWI MATERIAL HANDLING FEE				0			\$0	\$0	\$0	\$0	\$22,778,760	\$22,778,760

4.1 CONSTRUCTION MANAGEMENT

	CONSTRUCTION MANAGEMENT	U.C. per \$	142,153,165.00	\$	0			\$0	\$0	\$0	\$0	0.07	0.07
								\$0	\$0	\$0	\$0	\$9,950,722	\$9,950,722

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Metall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.1 CONSTRUCTIONMANAGEMENT												
	Subtotal						\$0	\$0	\$0	\$0	\$9,950,722	\$9,950,722
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$9,950,722
	Escalation						\$0	\$0	\$0	\$0	\$1,329,416	\$1,329,416
	Contingency						\$0	\$0	\$0	\$0	\$6,036,997	\$6,036,997
— Total 4.1 CONSTRUCTIONMANAGEMENT					0		\$0	\$0	\$0	\$0	\$17,317,135	517,317,135

4.2.01.01 WRPF - GENERAL CONDITIONS

	GEN	<i>U.C. per HRS</i>			<i>0.12</i>	<i>\$40.00</i>	<i>4.8</i>	0	0	0	0	<i>4.8</i>
SUPERVISION			250,991.00	HRS	30,119	CN-SUPR	\$1,204,757	\$0	\$0	\$0	\$0	\$1,204,757
Memo: @ 12% of labor hrs.												
	GEN	<i>U.C. per \$</i>					0	0	0	0.006	0	0.006
Mobilization & Demobilization			31,433,145.00	\$	0	CN-SKWK	\$0	\$0	\$0	\$188,599	\$0	\$188,599
Memo: Mobilization/demobilization costs @ .6% of direct construction \$.												
	GEN	<i>U.C. per HRS</i>					0	4	0	0	0	4
CONSTRUCTION EQUIPMENT ALLOWANCE			250,991.00	HRS	0		\$0	\$1,003,964	\$0	\$0	\$0	\$1,003,964
Memo: @ \$2.50 LABOR HOUR.												
	GEN	<i>U.C. per \$</i>					0	0	0.04	0	0	0.04
SMALL TOOLS & CONSUMABLES			17,745,623.00	\$	0		\$0	\$0	\$709,825	\$0	\$0	\$709,825
Memo: @ 4% of construction labor \$.												
	GEN	<i>U.C. per HRS</i>			<i>0.08</i>	<i>\$31.58</i>	<i>2.526</i>	0	0	0	0	<i>2.526</i>
GENERAL CLEANUP			250,991.00	HRS	20,079	CN-LABR	\$634,104	\$0	\$0	\$0	\$0	\$634,104
Memo: @ 8% of construction labor hours												
	GEN	<i>U.C. per HRS</i>			<i>0.05</i>	<i>\$34.52</i>	<i>1.726</i>	0	0	0	0	<i>1.726</i>
CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE			250,991.00	HRS	12,550	CN-SKWK	\$433,210	\$0	\$0	\$0	\$0	\$433,210
Memo: @ 5% of labor hours.												
	GEN	<i>U.C. per wks</i>			<i>40</i>	<i>\$70.00</i>	<i>2800</i>	0	0	0	0	<i>2800</i>
QA Manager			107.00	wks	4,280	CN-MGR	\$299,600	\$0	\$0	\$0	\$0	\$299,600

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Melt all with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.01.01 WRPf - GENERAL CONDITIONS</u>												
	QA Clerk	GEN	<i>U.C. per wks</i>		<i>40</i>	<i>\$20.00</i>	<i>800</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>800</i>
			107.00	wks	4,280	CN-CLRK	\$85,600	\$0	\$0	\$0	\$0	\$85,600
	QC Inspector (ave 3 inspectors)	GEN	<i>U.C. per wks</i>		<i>120</i>	<i>\$40.00</i>	<i>4800</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>4800</i>
			107.00	wks	12,840	CN-SUPR	\$513,600	\$0	\$0	\$0	\$0	\$513,600
	QAJQC Pickup (1 pickup)	GEN	<i>U.C. per wks</i>		<i>40</i>		<i>0</i>	<i>315.2</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>315.2</i>
			107.00	wks	4,280	00E2060	\$0	\$33,726	\$0	\$0	\$0	\$33,726
	Craning Allowance - W/ Operator & Oiler	GEN	<i>U.C. per Wk</i>		<i>80</i>	<i>\$34.20</i>	<i>2736</i>	<i>1250</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>3986</i>
			107.00	Wk	8,560	CN-ENGR	\$292,752	\$133,750	\$0	\$0	\$0	\$426,502
	CONSTRUCTION WAREHOUSE	GEN	<i>U.C. per SF</i>				<i>0</i>	<i>0</i>	<i>0</i>	<i>75</i>	<i>0</i>	<i>75</i>
			15,000.00	SF	0		\$0	\$0	\$0	\$1,125,000	\$0	\$1,125,000
Memo: Based on Means Facility Cost manual adjusted by our Nine-Block Matrix factors assuming a #6 or 7 on the Matrix.												
Subtotal							\$3,463,623	\$1,171,440	\$709,825	\$1,313,599	\$0	\$6,658,487
Sales Tax							\$0	\$0	\$42,589	\$0	\$0	\$42,589
INEEUSubcontractor Overheads							\$1,005,490	\$340,069	\$218,426	\$381,338	\$0	\$1,945,323
Subtotal Estimate												\$8,646,399
Escalation							\$597,073	\$201,938	\$129,704	\$226,444	\$0	\$1,155,159
Contingency							\$2,711,363	\$917,017	\$588,999	\$1,028,300	\$0	\$5,245,679
—Total 4.2.01.01 WRPf - GENERAL CONDITIONS					92,708		\$7,777,549	\$2,630,464	\$1,689,543	\$2,949,680	\$0	\$15,047,237

4.2.01.02.01 UTILITY & SUPPORT - FIRE PUMP HOUSE

	PRE-ENGINEERED METAL BUILDING 30 X 40		<i>U.C. per sf</i>				<i>0</i>	<i>0</i>	<i>0</i>	<i>143.73</i>	<i>0</i>	<i>143.73</i>
			1,200.00	sf	0		\$0	\$0	\$0	\$172,476	\$0	\$172,476
Memo: Unit costs for this pre-engineered metal building is based on historical cost of a facility erected at the RWMC area in 1996, the RWMC Maintenance Facility. The reflected unit cost includes slab on grade, building structure, mechanical, and electrical. The estimate file contains the historical cost data sheet.												

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged interim Action**
Stage III Project Treatment-Melt all with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>EquiDment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.01.02.01.01 UTILITY & SUPPORT - FIRE PUMP HOUSE</u>												
	Subtotal							\$0	\$0	\$0	\$172,476	\$172,476
	Sales Tax							\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%						\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate							\$0	\$0	\$0	\$23,043	\$172,476
	Escalation							\$0	\$0	\$0	\$0	\$23,043
	Contingency							\$0	\$0	\$0	\$104,639	\$104,639
—Total 4.2.01.02.01.01 UTILITY & SUPPORT - FIRE PUMP HOUSE					0			\$0	\$0	\$0	\$300,158	\$300,158
<u>4.2.01.02.01.02 UTILITY & SUPPORT - POTABLE WATER SYSTEM</u>												
	2" POTABLE LINE	PIPE	U.C. per LF					0	0	0	15	15
				1,000.00	LF	0	CN-PIPE	\$0	\$0	\$0	\$15,000	\$15,000
	EXCAVATION FOR LINE	GEN	U.C. per LF					0	0	0	50	50
				1,000.00	LF	0	CN-ENGR	\$0	\$0	\$0	\$50,000	\$50,000
	Subtotal							\$0	\$0	\$0	\$65,000	\$65,000
	Sales Tax							\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	33.43%						\$0	\$0	\$0	\$21,731	\$21,731
	Subtotal Estimate							\$0	\$0	\$0	\$11,587	\$86,731
	Escalation							\$0	\$0	\$0	\$0	\$11,507
	Contingency							\$0	\$0	\$0	\$52,619	\$52,619
—Total 4.2.01.02.01.02 UTILITY & SUPPORT - POTABLE WATER SYSTEM					0			\$0	\$0	\$0	\$150,936	\$150,936
<u>4.2.01.02.01.03 UTILITY & SUPPORT - SANITARY WASTE SYSTEM</u>												
	4" SANITARY WASTE LINE	PIPE	U.C. per LF					0	0	0	40	40
				1,000.00	LF	0	CN-PIPE	\$0	\$0	\$0	\$40,000	\$40,000
	SEWAGE LIFT STATION (ALLOWANCE)	PIPE	U.C. per EA					0	0	0	42500	42500
				1.00	EA	0	CN-PIPE	\$0	\$0	\$0	\$42,500	\$42,500

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Eaument</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.01.02.01.03 UTILITY & SUPPORT- SANITARY WASTE SYSTEM</u>												
	ELECTRICAL ALLOWANCE	ELEC U.C. per LS	1.00	LS	0	CN-ELEC	\$0	\$0	\$0	10000 \$10,000	\$0	10000 \$10,000
	EXCAVATION FOR LINE	GEN U.C. per LF	1,000.00	LF	0	CN-ENGR	\$0	\$0	\$0	50 \$50,000	\$0	50 \$50,000
Subtotal							\$0	\$0	\$0	\$142,500	\$0	\$142,500
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$59,011	\$0	\$59,011
Subtotal Estimate												\$201,511
Escalation							\$0	\$0	\$0	\$26,922	\$0	\$26,922
Contingency							\$0	\$0	\$0	\$122,255	\$0	\$122,255
—Total 4.2.01.02.01.03 UTILITY & SUPPORT- SANITARY WASTE SYSTEM					0		\$0	\$0	\$0	8350,688	\$0	\$350,688

4.2.01.02.01.04 UTILITY & SUPPORT- FIRE PIPING SYSTEM

	FIRE PUMPS	FP U.C. per EA	2.00	EA	0	CN-SPRI	\$0	\$0	\$0	64500 \$129,000	\$0	64500 \$129,000
	MISC VALVING, EQUIPMENT, & CONTROLS	FP U.C. per LS	1.00	LS	0	CN-SPRI	\$0	\$0	\$0	38500 \$38,500	\$0	38500 \$38,500
Memo: Allowance @ 30% of pump costs.												
	4' FIRE MAIN	FP U.C. per LF	1,000.00	LF	0	CN-SPRI	\$0	\$0	\$0	50 \$50,000	\$0	50 \$50,000
Memo: Based on a detailed take off of pipe, PIV's, hydrants, thrust blocks, coat & wrap, jumpers testing, etc.												
	6" FIRE MAIN-LOOP	FP U.C. per LF	3,000.00	LF	0	CN-SPRI	\$0	\$0	\$0	65.3 \$195,900	\$0	65.3 \$195,900
Memo: Based on a detailed take off of pipe, PIV's, hydrants, thrust blocks, coat & wrap, jumpers testing, etc.												
	WATER STORAGE TANK 40' DIA X 40 HIGH	FP U.C. per EA	1.00	EA	0	CN-SPRI	\$0	\$0	\$0	130000 \$130,000	\$0	130000 \$130,000
Memo: Costs are based on Richardson's 2000 API Cone Roof Storage tank sec. 100-370 page 3.												

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.01.02.01.04 UTILITY & SUPPORT - FIRE PIPING SYSTEM												
	TANK INSULATION	INSUL	U.C. per SF	6,284.00	SF	0	CN-ASBE	\$0	\$0	\$0	14.7	\$92,375
											0	\$0
												14.7
												\$92,375
	TANK FOUNDATION	GEN	U.C. per LS	1.00	LS	0	CN-ENGR	\$0	\$0	\$0	40000	\$40,000
											0	\$0
												40000
												\$40,000
	Memo: Allowance @ 30% of tank cost.											
	EXCAVATION FOR LINE	GEN	U.C. per LF	4,000.00	LF	0	CN-ENGR	\$0	\$0	\$0	50	\$200,000
											0	\$0
												50
												\$200,000
	Subtotal							\$0	\$0	\$0	\$075,775	\$075,775
	Sales Tax							\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractor Overheads		38.40%					\$0	\$0	\$0	\$336,271	\$336,271
	Subtotal Estimate							\$0	\$0	\$0	\$161,929	\$161,929
	Escalation							\$0	\$0	\$0	\$735,336	\$735,336
	Contingency							\$0	\$0	\$0	\$0	\$0
— Total 4.2.01.02.01.04 UTILITY & SUPPORT - FIRE PIPING SYSTEM						0		\$0	\$0	\$0	\$2,109,311	\$2,109,311

4.2.01.02.01.05 SITEWORK

	Excavate for Concrete Pad	DIRT	U.C. per CY	44.00	CY	0.39	\$34.75	13.553	1.27	0	0	0	14.823
						17	CN-EQMD	\$596	\$56	\$0	\$0	\$0	\$652
	12" of Pitrun for Equipment Pad	DIRT	U.C. per CY	33.00	CY	0.032	\$34.75	1.098	0.711	8	0	0	9.809
						1	CN-EQMD	\$36	\$23	\$264	\$0	\$0	\$324
	4" of Compacted Crushed Gravel	DIRT	U.C. per CY	11.00	CY	1.09	\$34.75	37.877	30	27	0	0	94.877
						12	CN-EQMD	\$417	\$330	\$297	\$0	\$0	\$1,044

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.01.02.01.05.2 SITEWORK												
	Surveyors	DIRT			20	\$33.17	663.4	0	0	0	0	663.4
			1.00	Day	20	CN-SURV	\$663	\$0	\$0	\$0	\$0	\$663
Subtotal							\$1,713	\$409	\$561	\$0	\$0	\$2,683
Sales Tax							\$0	\$0	\$34	\$0	\$0	\$34
INEEL/Subcontractor Overheads							\$718	\$172	\$249	\$0	\$0	\$1,139
Subtotal Estimate												\$3,856
Escalation							\$325	\$78	\$113	\$0	\$0	\$515
Contingency							\$1,475	\$352	\$512	\$0	\$0	\$2,339
—Total 4.2.01.02.01.05.2 SITEWORK					50		\$4,230	\$1,011	\$1,469	\$0	\$0	\$6,710

4.2.01.02.01.05.3 CONCRETE

	Form & Strip 8" Concrete Pad	CONC			0.07	\$35.81	2.507	0	0.22	0	0	2.727
			240.00	LF	17	CN-CARP	\$602	\$0	\$53	\$0	\$0	\$654
	Tie Rebar For Transformer Pad	CONC			0.02	\$35.81	0.716	0	0.3	0	0	1.016
			4,000.00	Lbs	80	CN-RODM	\$2,865	\$0	\$1,200	\$0	\$0	\$4,065
	Place & Finish Concrete For Transformer Pad	CONC			0.591	\$33.08	19.55	0	85	0	0	104.55
			40.00	CY	24	CN-CONC	\$782	\$0	\$3,400	\$0	\$0	\$4,182

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.01.02.01.05.3 CONCRETE</u>												
	CONC	<i>U.C. per ea</i>			2	\$31.58	63.16	0	130	0	0	193.16
	Install Guard Post around Transformer Pad		48.00	ea	96	CN-LABR	\$3,032	\$0	\$6,240	\$0	\$0	\$9,272
Subtotal							\$7,280	\$0	\$10,893	\$0	\$0	\$18,173
Sales Tax							\$0	\$0	\$654	\$0	\$0	\$654
INEEUSubcontractor Overheads							\$3,053	\$0	\$4,842	\$0	\$0	\$7,895
Subtotal Estimate												\$26,721
Escalation							\$1,380	\$0	\$2,189	\$0	\$0	\$3,570
Contingency							\$6,269	\$0	\$9,942	\$0	\$0	\$16,211
— Total 4.2.01.02.01.05.3 CONCRETE					216		\$17,982	\$0	\$28,520	\$0	\$0	\$46,502

4.2.01.02.01.05.4.1 SWITCHGEAR

	ELEC	<i>U.C. per Ea</i>			160	\$35.89	5742.4	5000	382000	0	0	392742.4
	2000 AMP NEMA 3R WALK-IN 5kV DOUBLE ENDED SWITCHGEAR		1.00	Ea	160	CN-ELEC	\$5,742	\$5,000	\$382,000	\$0	\$0	\$392,742
Memo: Cost for switchgear is factored from INTEC, EUSU, Sub 60 costs in 1997. This gear was 3000 amp Nema 1. This estimate assumes 14% escalation c \$375,000= \$427,500. Then factors to 66% because of the 2000 amp bus rating of this gear. The estimate adds \$100,00 to the estimate for the Nema 3R enclosure.												
Subtotal							\$5,742	\$5,000	\$382,000	\$0	\$0	\$392,742
Sales Tax							\$0	\$0	\$22,920	\$0	\$0	\$22,920
INEEUSubcontractor Overheads							\$2,762	\$2,405	\$194,783	\$0	\$0	\$199,950
Subtotal Estimate												\$615,613
Escalation							\$1,136	\$989	\$80,120	\$0	\$0	\$82,246
Contingency							\$5,160	\$4,493	\$363,833	\$0	\$0	\$373,486
— Total 4.2.01.02.01.05.4.1 SWITCHGEAR					160		\$14,801	\$12,887	\$1,043,656	\$0	\$0	\$1,071,344

4.2.01.02.01.05.4.2 TRANSFORMERS

	ELEC	<i>U.C. per Ea</i>			80	\$35.89	2871.2	5000	37700	0	0	45571.2
	2000 kVA 4160-277/480 DRY TRANSFORMER		1.00	Ea	80	CN-ELEC	\$2,871	\$5,000	\$37,700	\$0	\$0	\$45,571

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.01.02.01.05.4.2 TRANSFORMERS</u>												
	ELEC	U.C. per Ea			60	\$35.89	2153.4	5000	33200	0	0	40353.4
	1500 kVA 4160-277/480 DRY TRANSFORMER		1.00	Ea	60	CN-ELEC	\$2,153	\$5,000	\$33,200	\$0	\$0	\$40,353
Memo: Transformer and labor costs are based on R. S. Means.												
	ELEC	U.C. per Ea			80	\$35.89	2871.2	5000	42400	0	0	50271.2
	2500 kVA 4160-277/480 DRY TRANSFORMER		2.00	Ea	160	CN-ELEC	\$5,742	\$10,000	\$84,800	\$0	\$0	\$100,542
<hr/>												
	Subtotal						\$10,767	\$20,000	\$155,700	\$0	\$0	\$186,467
	Sales Tax						\$0	\$0	\$9,342	\$0	\$0	\$9,342
	INEEL/Subcontractor Overheads	48.10%					\$5,179	\$9,621	\$79,392	\$0	\$0	\$94,192
<hr/>												
	Subtotal Estimate											\$290,001
	Escalation						\$2,130	\$3,957	\$32,656	\$0	\$0	\$38,744
	Contingency						\$9,674	\$17,971	\$148,295	\$0	\$0	\$175,941
<hr/>												
— Total 4.2.01.02.01.05.4.2 TRANSFORMERS					300		\$27,751	\$51,549	\$425,386	\$0	\$0	\$504,686
<hr/>												
<u>4.2.01.02.01.05.4.3 STANDBY GENERATOR</u>												
	ELEC	U.C. per Ea			120	\$35.89	4306.8	5000	233000	0	0	242306.8
	1000kW DIESEL GENERATOR		1.00	Ea	120	CN-ELEC	\$4,307	\$5,000	\$233,000	\$0	\$0	\$242,307
Memo: Pricing is based on a verbal ROM quote from Western States Equipment in Boise, 6/30/03. Price includes louvers, day tank, and maint fuel tank.												
<hr/>												
	Subtotal						\$4,307	\$5,000	\$233,000	\$0	\$0	\$242,307
	Sales Tax						\$0	\$0	\$13,980	\$0	\$0	\$13,980
	INEEL/Subcontractor Overheads	48.10%					\$2,072	\$2,405	\$118,807	\$0	\$0	\$123,284
<hr/>												
	Subtotal Estimate											\$379,571
	Escalation						\$852	\$989	\$48,869	\$0	\$0	\$50,711
	Contingency						\$3,870	\$4,493	\$221,919	\$0	\$0	\$230,282
<hr/>												
— Total 4.2.01.02.01.05.4.3 STANDBY GENERATOR					120		\$11,101	\$12,887	\$636,576	\$0	\$0	\$660,563

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage 111 Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.01.02.01.05.4.4 CONDUCTORS AND GROUNDING</u>												
	ELEC	<i>U.C. per Lf</i>			<i>0.07</i>	<i>\$35.89</i>	<i>2.512</i>	<i>0</i>	<i>4.5</i>	<i>0</i>	<i>0</i>	<i>7.012</i>
	500 MCM 5 kV POWER CABLE, ASSUME 6 PER PHASE, 200 LF run		3,600.00	Lf	252	CN-ELEC	\$9,044	\$0	\$16,200	\$0	\$0	\$25,244
	ELEC	<i>U.C. per Lf</i>			<i>0.03</i>	<i>\$35.89</i>	<i>1.077</i>	<i>0</i>	<i>0.8</i>	<i>0</i>	<i>0</i>	<i>1.877</i>
	1/0 GROUND WIRE		3,200.00	Lf	96	CN-ELEC	\$3,445	\$0	\$2,560	\$0	\$0	\$6,005
	ELEC	<i>U.C. per Lf</i>			<i>0.05</i>	<i>\$35.89</i>	<i>1.795</i>	<i>0</i>	<i>2.37</i>	<i>0</i>	<i>0</i>	<i>4.165</i>
	500 MCM 600 VOLT CABLE		13,500.00	Lf	675	CN-ELEC	\$24,226	\$0	\$31,995	\$0	\$0	\$56,221
Memo: Assume distribution transformers are located 500 Lf from the 5 kV switchgear.												
	ELEC	<i>U.C. per Lf</i>			<i>0.03</i>	<i>\$35.89</i>	<i>1.077</i>	<i>0</i>	<i>0.8</i>	<i>0</i>	<i>0</i>	<i>1.877</i>
	2/0 BARE COPPER GROUND FOR SWITCHGEAR PAD		600.00	Lf	18	CN-ELEC	\$646	\$0	\$480	\$0	\$0	\$1,126
	ELEC	<i>U.C. per Lf</i>			<i>0.032</i>	<i>\$35.89</i>	<i>1.148</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>2.148</i>
	3/0 BARE COPPER GROUND FOR SWITCHGEAR PAD		500.00	Lf	16	CN-ELEC	\$574	\$0	\$500	\$0	\$0	\$1,074
	ELEC	<i>U.C. per Ea</i>			<i>1.5</i>	<i>\$35.89</i>	<i>53.835</i>	<i>0</i>	<i>17</i>	<i>0</i>	<i>0</i>	<i>70.835</i>
	CADWELDS		70.00	Ea	105	CN-ELEC	\$3,768	\$0	\$1,190	\$0	\$0	\$4,958
	ELEC	<i>U.C. per Ea</i>			<i>1</i>	<i>\$35.89</i>	<i>35.89</i>	<i>0</i>	<i>35</i>	<i>0</i>	<i>0</i>	<i>70.89</i>
	GROUND RODS		20.00	Ea	20	CN-ELEC	\$718	\$0	\$700	\$0	\$0	\$1,418
Subtotal							\$42,422	\$0	\$53,625	\$0	\$0	\$96,047
Sales Tax							\$0	\$0	\$3,218	\$0	\$0	\$3,218
INEEL/Subcontractor Overheads							48.10%	\$20,407	\$0	\$27,344	\$0	\$47,750
Subtotal Estimate												\$147,015
Escalation							\$8,394	\$0	\$11,247	\$0	\$0	\$19,641
Contingency							\$38,117	\$0	\$51,075	\$0	\$0	\$89,192
--- Total	4.2.01.02.01.05.4.4	CONDUCTORS AND GROUNDING			1,182		\$109,340	\$0	\$146,508	\$0	\$0	\$255,848

4.2.01.02.01.05.4.5 TESTING

	ELEC	<i>U.C. per Is</i>			<i>200</i>	<i>\$35.89</i>	<i>7178</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>7178</i>
	Testing of systems and equipment		1.00	Is	200	CN-ELEC	\$7,178	\$0	\$0	\$0	\$0	\$7,178

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.01.02.0105.4.5 TESTING												
	Subtotal						\$7,178	\$0	\$0	\$0	\$0	\$7,178
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractor Overheads	48.10%					\$3,453	\$0	\$0	\$0	\$0	\$3,453
	Subtotal Estimate											\$10,631
	Escalation						\$1,420	\$0	\$0	\$0	\$0	\$1,420
	Contingency						\$6,450	\$0	\$0	\$0	\$0	\$6,450
--Total 4.2.01.02.01.05.4.5 TESTING					200		\$1 8,501	\$0	\$0	\$0	\$0	\$18,501

4.2.01.02.02 WRPF EARTHWORK

	DIRT	<i>U.C. per CY</i>					0	0	0	3.51	0	3.51
	FOUNDATION EXCAVATION		9,259.00	CY	0		\$0	\$0	\$0	\$32,499	\$0	\$32,499
	DIRT	<i>U.C. per CY</i>					0	0	0	13.87	0	13.87
	FOUNDATION BACKFILL & COMPACT		8,387.00	CY	0		\$0	\$0	\$0	\$1 16,328	\$0	\$1 16,328
	DIRT	<i>U.C. per CY</i>					0	0	0	1.8	0	1.8
	SPREAD EXCESS EXCAVATED MATERIAL		872.00	CY	0		\$0	\$0	\$0	\$1,570	\$0	\$1,570
	Subtotal						\$0	\$0	\$0	\$150,396	\$0	\$150,396
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractor Overheads	41.93%					\$0	\$0	\$0	\$63,066	\$0	\$63,066
	Subtotal Estimate											\$213,462
	Escalation						\$0	\$0	\$0	\$28,519	\$0	\$28,519
	Contingency						\$0	\$0	\$0	\$129,505	\$0	\$129,505
—Total 4.2.01.02.02 WRPF EARTHWORK					0		\$0	\$0	\$0	\$371,486	\$0	\$371,486

4.2.01.03 WRPF - CONCRETE

	GEN	<i>U.C. per CY</i>					0	0	0	430	0	430
	FOUNDATION WALLS & FTGS.		662.00	CY	0		\$0	\$0	\$0	\$284,660	\$0	\$284,660

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Metall with Thermal Desorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **RD. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>	
	MISC. & EQUIP. FDNS.	GEN	U.C. per CY	210.00	CY	0		0 \$0	0 \$0	0 \$0	430 \$90,300	0 \$0	430 \$90,300
	FLOORS	GEN	U.C. per CY	1,544.00	CY	0		0 \$0	0 \$0	0 \$0	430 \$663,920	0 \$0	430 \$663,920
	WALLS	GEN	U.C. per CY	2,389.00	CY	15.811 37,773	\$34.52 CN-SKWK	545.803 \$1,303,922	0 \$0	191.31 \$457,040	79.26 \$189,352	0 \$0	816.373 \$1,950,314
	COLUMNS	GEN	U.C. per CY	866.00	CY	8.525 7,383	\$34.52 CN-SKWK	294.283 \$254,849	0 \$0	131.8 \$114,139	306.18 \$265,152	0 \$0	732.263 \$634,140
	BEAMS & GIRDERS	GEN	U.C. per CY	741.00	CY	9.404 6.968	\$34.52 CN-SKWK	324.626 \$240,548	0 \$0	143.8 \$106,556	235.81 \$174,735	0 \$0	704.236 \$521,839
Subtotal								\$1,799,319	\$0	\$677,734	\$1,668,119	\$0	\$4,145,173
Sales Tax								\$0	\$0	\$40,664	\$0	\$0	\$40,664
INEEUSubcontractorOverheads							29.03%	\$522,342	\$0	\$208,551	\$484,255	50	\$1,215,148
Subtotal Estimate													\$5,400,985
Escalation								\$310,174	\$0	\$123,840	\$287,557	\$0	\$721,572
Contingency								\$1,408,528	\$0	\$562,370	\$1,305,823	\$0	\$3,276,720
— Total 4.2.01.03 WRPf • CONCRETE						52,124		\$4,040,364	\$0	\$1,613,160	\$3,745,754	\$0	\$9,399,278

4.2.01.05 WRPf - METALS

ROOF DECK	STEEL	U.C. per SF	62,500.00	SF	0.012 759	\$42.71 STEEL1	0.519 \$32,435	0.288 \$17,985	2.683 \$167,688	0 \$0	0 \$0	3.49 \$218,107
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DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Melt all with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.01.05WRPF - METALS												
	Subtotal						\$32,435	\$17,985	\$167,688	\$0	\$0	5218,107
	Sales Tax						\$0	\$0	\$10,061	\$0	\$0	\$10,061
	INEEUSubcontractor Overheads	41.93%					\$13,601	\$7,541	\$74,535	\$0	\$0	\$95,678
	Subtotal Estimate											\$323,847
	Escalation						\$6,150	\$3,410	\$33,705	\$0	\$0	\$43,266
	Contingency						\$27,930	\$15,486	\$153,058	\$0	\$0	\$196,474
—Total 4.2.01.05WRPF - METALS					759		\$80,117	\$44,423	\$439,047	\$0	\$0	\$563,587
4.2.01.07 WRPF -THERMAL & MOISTURE PROTECTION												
	ROOF INSULATION	ROOF	U.C. per SF				0	0	0	1.931	0	7.937
			62,500.00 SF		0		\$0	\$0	\$0	\$120,706	\$0	\$120,706
	ROOFING	ROOF	U.C. per SF				0	0	0	2.938	0	2.938
			62,500.00 SF		0		\$0	\$0	\$0	\$183,594	\$0	\$183,594
	EXTERIOR WALL INSULATION	INSUL	U.C. per SF				0	0	0	1.71	0	1.77
			51,060.00 SF		0		\$0	\$0	\$0	\$87,313	\$0	\$87,313
	EXTERIOR WALL METAL SIDING	STEEL	U.C. per SF		0.068	\$36.82	2.485	0	4.47	0	0	6.955
			51,060.00 SF		3,447	CN-SHEE	\$126,902	\$0	\$228,238	\$0	\$0	\$355,140
	Subtotal						\$126,902	\$0	\$228,238	\$391,613	\$0	5746,753
	Sales Tax						\$0	\$0	\$13,694	\$0	\$0	\$13,694
	INEEUSubcontractorOverheads	41.93%					\$53,214	\$0	\$101,450	\$164,215	\$0	\$318,878
	Subtotal Estimate											\$1,079,325
	Escalation						\$24,063	\$0	\$45,876	\$74,259	\$0	\$144,198
	Contingency						\$109,274	\$0	\$208,326	\$337,215	\$0	\$654,815
—Total 4.2.01.07WRPF - THERMAL & MOISTURE PROTECTION					3,447		\$313,454	\$0	\$597,504	\$967,301	\$0	\$1,070,330

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Melt all with Thermal Desorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

Code	Description	Contractor	Qty	UOM	Hrs	Resource	Labor	Equipment	Material	Subcontractor	Other	TOTAL
4.2.01.08 WRPf - DOORS & WINDOWS												
	PERSONNEL DOORS 3'X7'	GEN	7.00	EA	6.885	\$35.81	246.551	0	903.89	0	0	1150.441
		U.C. per EA			48	CN-CARP	\$1,726	\$0	\$6,327	\$0	\$0	\$8,053
	PERSONNEL DOORS 6'X7'	GEN	3.00	EA	14.58	\$35.81	522.11	0	2089.37	0	0	2611.48
		U.C. per EA			44	CN-CARP	\$1,566	\$0	\$6,268	\$0	\$0	\$7,834
<hr/>												
	Subtotal						\$3,292	\$0	\$12,595	\$0	\$0	\$15,888
	Sales Tax						\$0	\$0	\$756	\$0	\$0	\$756
	INEEL Subcontractor Overheads	29.03%					\$956	\$0	\$3,876	\$0	\$0	\$4,832
<hr/>												
	Subtotal Estimate											\$21,475
	Escalation						\$568	\$0	\$2,302	\$0	\$0	\$2,869
	Contingency						\$2,577	\$0	\$10,451	\$0	\$0	\$13,029
<hr/>												
---Total	4.2.01.08 WRPf - DOORS & WINDOWS				92		\$7,393	\$0	\$29,980	\$0	\$0	\$37,372
<hr/>												
4.2.01.09 WRPf - FINISHES												
	EPOXY FLOOR COATING	PAINT	62,500.00	SF	0.108	\$38.00	4.104	0	1.07	0	0	5.174
		U.C. per SF			6,750	CN-PNTS	\$256,500	\$0	\$66,875	\$0	\$0	\$323,375
	EPOXY WALL & CEILING COATING	PAINT	126,992.00	SF	0.078	\$38.00	2.964	0	1.14	0	0	4.104
		U.C. per SF			9,905	CN-PNTS	\$376,404	\$0	\$144,771	\$0	\$0	\$521,175
<hr/>												
	Subtotal						\$632,904	\$0	\$211,646	\$0	\$0	\$844,550
	Sales Tax						\$0	\$0	\$12,699	\$0	\$0	\$12,699
	INEEL/Subcontractor Overheads	41.93%					\$265,396	\$0	\$94,074	\$0	\$0	\$359,470
<hr/>												
	Subtotal Estimate											\$1,216,719
	Escalation						\$120,013	\$0	\$42,541	\$0	\$0	\$162,554
	Contingency						\$544,989	\$0	\$193,181	\$0	\$0	\$738,171
<hr/>												
---Total	4.2.01.09 WRPf - FINISHES				16,655		\$1,563,302	\$0	\$554,141	\$0	\$0	\$2,117,443

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Metall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS/ S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.01.11 WRPf - EQUIPMENT-INSTALL GFE</u>												
<i>Memo: From "Plant Design and Economics for Chemical Engineers," the average installation costs are about 25% of purchase price. Due to the very specialized nature of some of these systems (and the very high system purchase prices), assume installation will be one-half the average or 12.5% of purchase price. This factor will only apply to the non-HVAC and non-I&C equipment. HVAC and I&C equipment installation will be detailed separately.</i>												
	EQUIPMENT INSTALLATION					U.C. per \$						
			61,320,957.00	\$	0		\$7,665,120	\$0	\$0	\$0	\$0	\$7,665,120
	Subtotal						\$7,665,120	\$0	\$0	\$0	\$0	\$7,665,120
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractor Overheads					0.00%	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$7,665,120
	Escalation						\$1,024,060	\$0	\$0	\$0	\$0	\$1,024,060
	Contingency						\$4,650,347	\$0	\$0	\$0	\$0	\$4,650,347
—Total 4.2.01.11 WRPf - EQUIPMENT-INSTALL GFE					0		\$13,339,526	\$0	\$0	\$0	\$0	\$13,339,526

4.2.01.15.01 WRPf - INSTALL HVAC EQUIPMENT & DUCT

	PIPE				60	536.82	2209.2	0	0	0	0	2209.2
	1000 KW HEATER SECTION (PREHEAT)		1.00	EA	60	CN-SHEE	\$2,209	\$0	\$0	\$0	\$0	\$2,209
	PIPE				160	536.82	5891.2	0	0	0	0	5891.2
	INLET HEPA FILTER TRAIN 6X4 (1,500 CFM/ FILTER)		2.00	EA	320	CN-SHEE	\$11,782	\$0	\$0	\$0	\$0	\$11,782
Memo: The cost for this filter train includes; inlet isolation dampers, prefilter section, test inlet, HEPA filters, test outlet, & outlet isolation damper.												
	PIPE				160	536.82	5891.2	0	0	0	0	5891.2
	OUTLET HEPA FILTER TRAIN 6X4 (1,500 CFM/ FILTER)		2.00	EA	320	CN-SHEE	\$11,702	\$0	\$0	\$0	\$0	\$11,782
Memo: The cost for this filter train includes; inlet isolation dampers, mist eliminator, TI, charcoal filter, heater section (RH control), prefilter section, test inlet, HEPA filters, test combination, & outlet isolation damper.												
	PIPE				150	536.82	5523	0	0	0	0	5523
	MAIN EXHAUST FAN (62,500 CFM- 300 HP)		1.00	EA	150	CN-SHEE	\$5,523	\$0	\$0	\$0	\$0	\$5,523
	PIPE				120	536.82	4418.4	0	0	0	0	4418.4
	BACK-UP EXHAUST FAN (11,000 CFM-200 HP)		1.00	EA	120	CN-SHEE	\$4,418	\$0	\$0	\$0	\$0	\$4,418
	PIPE				8	536.82	294.56	0	0	0	0	294.56
	RADIANT HEATERS 13.5 KW		18.00	EA	144	CN-SHEE	\$5,302	\$0	\$0	\$0	\$0	\$5,302

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Melt all with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>	
4.2.01.15.01WRPF - INSTALL HVAC EQUIPMENT& DUCT													
	PIPE	U.C. per EA			60	\$36.82	2209.2	0	0	0	0	2209.2	
	COMPUTER ROOMAC UNIT (10 TON GLYCOL UNIT)		1.00	EA	60	CN-SHEE	\$2,209	\$0	\$0	\$0	\$0	\$2,209	
	HVAC	U.C. per LBS			0.2	\$36.82	7.364	0.3	2	0	0	9.664	
	STAINLESS STEEL DUCTWORK (BASED ON 1 LBS/SF)		62,500.00	LBS	12,500	CN-SHEE	\$460,250	\$18,750	\$125,000	\$0	\$0	9604,000	
	HVAC	U.C. per LBS			0.08	\$36.82	2.946	0.3	0.75	0	0	3.996	
	GALVANIZED STEEL DUCTWORK (BASEDON 1 LBS/SF)		62,500.00	LBS	5,000	CN-SHEE	\$184,100	\$18,750	\$46,875	\$0	\$0	\$249,725	
Subtotal							\$687,577	\$37,500	\$171,875	\$0	\$0	5896,952	
Sales Tax							\$0	\$0	\$10,313	\$0	\$0	\$10,313	
INEEUSubcontractorOverheads							45.75%	\$314,847	\$17,113	\$83,142	\$0	\$0	\$415,102
Subtotal Estimate												\$1,322,367	
Escalation							\$133,924	\$7,296	\$35,448	\$0	\$0	\$176,668	
Contingency							\$608,160	\$33,133	\$160,973	\$0	\$0	\$802,266	
— Total 4.2.01.15.01 WRPF - INSTALL HVAC EQUIPMENT& DUCT					18,674		\$1,744,507	\$95,043	\$461,751	\$0	\$0	\$2,301,301	

4.2.01.15.02 WRPF - FIRE PROTECTION

Memo: *Costs are based on contacting a local fire protection vendor that has provided many hours of time as a consultant for the INEEL. This company has also design and installed many fire protection systems at the INEEL, as well as the GEM project. Fire system control costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility.*

	FP	<i>U.C. per SF</i>					<i>0</i>	<i>0</i>	<i>0</i>	<i>3.4</i>	<i>0</i>	<i>3.4</i>
	WPR FACILITY FIRE SYSTEM CONTROLS		62,500.00	SF	0	CN-SPRI	\$0	\$0	\$0	\$212,500	\$0	\$212,500
	FP	<i>U.C. per SF</i>					<i>0</i>	<i>0</i>	<i>0</i>	<i>3.65</i>	<i>0</i>	<i>3.65</i>
	WRP-DRY PIPE FIRE PROTECTION		62,500.00	SF	0	CN-SPRI	\$0	\$0	\$0	\$228,125	\$0	5228.125
	FP	<i>U.C. per SF</i>					<i>0</i>	<i>0</i>	<i>0</i>	<i>3.65</i>	<i>0</i>	<i>3.65</i>
	WRP-DRY PIPE FIRE PROTECTION (SECONDARY COVERAGE UNDER EQUIPMENT)		62,500.00	SF	0	CN-SPRI	\$0	\$0	\$0	\$228,125	\$0	\$228,125
	FP	<i>U.C. per LF</i>					<i>0</i>	<i>0</i>	<i>0</i>	<i>65.3</i>	<i>0</i>	<i>65.3</i>
	WRP- FEED MAINS		1,000.00	LF	0	CN-SPRI	\$0	\$0	\$0	\$65,300	\$0	\$65,300

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Melt all with Thermal Desorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.01.15.02 WRP - FIRE PROTECTION												
Memo: Costs are based on contacting a local fire protection vendor that has provided many hours of time as a consultant for the INEEL. This company has also design and installed many fire protection systems at the INEEL, as well as the GEM project. Fire system control costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility.												
	FP	U.C. per LS					0	0	0	100000	0	100000
	WRP-EXTRA HAZARD FOAM SYSTEM (EQUIPMENT ONLY)		1.00	LS	0	CN-SPRI	\$0	\$0	\$0	\$100,000	\$0	\$100,000
	FP	U.C. per SF					0	0	0	4.35	0	4.35
	WRP-EXTRA HAZARD FOAM PIPING DISTRIBUTION SYSTEM		62,500.00	SF	0	CN-SPRI	\$0	\$0	\$0	\$271,875	\$0	\$271,875
	FP	U.C. per EA					0	0	0	10000	0	10000
	WRP-EXTRA HAZARD FOAM MONITOR NOZZLES		6.00	EA	0	CN-SPRI	\$0	\$0	\$0	\$60,000	\$0	\$60,000
		U.C. per CF					0	0	0	30.17	0	30.17
	WRP-GLOVEBOX MIST SYSTEM		73,495.00	CF	0		\$0	\$0	\$0	\$2,217,344	\$0	\$2,217,344
Memo: Cost per cubic foot is based on the GEM facility glovebox fire protection misting system. Due to the extremely large sized gloveboxes an economy of scale factor was used @ 50% of GEM project.												
Subtotal							\$0	\$0	\$0	\$3,383,269	\$0	\$3,383,269
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractor Overheads							\$0	\$0	\$0	\$488,907	\$0	\$488,907
Subtotal Estimate							\$0	\$0	\$0	\$517,323	\$0	\$3,872,176
Escalation							\$0	\$0	\$0	\$2,349,208	\$0	\$517,323
Contingency							\$0	\$0	\$0	\$0	\$0	\$2,349,208
— Total 4.2.01.15.02 WRP - FIRE PROTECTION					0		\$0	\$0	\$0	\$6,738,700	\$0	\$6,738,708

4.2.01.15.03 WRP - PLANT AIR

Memo: Costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility. Equipment cost for the compressor is by the retrieval project.

		U.C. per SF					0	0	0	2.04	0	2.04
	WRP-PLANT AIR DIST. SYSTEM		62,500.00	SF	0		\$0	\$0	\$0	\$127,500	\$0	\$127,500

DETAIL ITEM REPORT

Project Name: *OU 7-70 Staged Interim Action*
Stage 111 Project Treatment-Melt all with Thermal Disorption Option
 Project Location: *INEEL-RWMC*
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: *Project Support*

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.01.15.03 WRPF - PLANT AIR</u>												
<i>Memo: Costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility. Equipment cost for the compressor is by the retrieval project.</i>												
	Subtotal						\$0	\$0	\$0	\$127,500	\$0	\$127,500
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$127,500
	Escalation						\$0	\$0	\$0	\$17,034	\$0	\$17,034
	Contingency						\$0	\$0	\$0	\$77,353	\$0	\$77,353
—Total 4.2.01.15.03 WRPF - PLANT AIR					0		\$0	\$0	\$0	\$221,807	\$0	16221,887

4.2.01.15.04 WRPF - BREATHING AIR

Memo: Costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility. No costs for the breathing air compressor have been included, assume provided to the project by the BBWI equipment pool at no cost to this project.

		<i>U.C. per SF</i>				<i>0</i>	<i>0</i>	<i>0</i>	<i>11.2</i>	<i>0</i>	<i>11.2</i>	
	WRP-BREATHING AIR DIST. SYSTEM		62,500.00	SF	0	\$0	\$0	\$0	\$700,000	\$0		\$700,000
	Subtotal					\$0	\$0	\$0	\$700,000	\$0		\$700,000
	Sales Tax					\$0	\$0	\$0	\$0	\$0		\$0
	INEEUSubcontractor Overheads	0.00%				\$0	\$0	\$0	\$0	\$0		\$0
	Subtotal Estimate											\$700,000
	Escalation					\$0	\$0	\$0	\$93,520	\$0		\$93,520
	Contingency					\$0	\$0	\$0	\$424,683	\$0		\$424,683
—Total 4.2.01.15.04 WRPF - BREATHING AIR					0	\$0	\$0	\$0	\$1,218,203	\$0		\$1,218,203

WRPF - PROCESS PIPING

Memo: Allowance is based on previous detail take-off process piping system.

	PIPE	<i>U.C. per SF</i>			<i>0.182</i>	<i>\$39.33</i>	<i>7.158</i>	<i>0</i>	<i>32.7</i>	<i>0</i>	<i>0</i>	<i>39.858</i>
	PROCESS PIPING ALLOWANCE (assume 50% reduction due to the equipment type)		31,250.00	SF	5,688	CN-PIPE	\$223,689	\$0	\$1,021,875	\$0	\$0	\$1,245,564

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage 111 Project Treatment-Meltail with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>WRPF - PROCESS PIPING</u>												
Memo: Allowance is based on previous detail take-off process piping system.												
	Subtotal						\$223,689	\$0	\$1,021,875	\$0	\$0	\$1,245,564
	Sales Tax						\$0	\$0	\$61,313	\$0	\$0	\$61,313
	INEEUSubcontractorOverheads	48.10%					\$107,604	\$0	\$521,057	\$0	\$0	5628,660
	Subtotal Estimate											\$1,935,537
	Escalation						\$44,261	\$0	\$214,327	\$0	\$0	\$250,508
	Continaencv						\$200.992	\$0	\$973.278	\$0	\$0	\$1,174.270
— Total	WRPF - PROCESS PIPING				5,688		\$576,546	\$0	\$2,791,849	\$0	\$0	\$3,368,394

4.2.01.16.01 WRPF - GENERAL FACILITIES ELECTRICAL

Memo: Costs are based on the GEM project calculated square footage.

		<i>U.C. per SF</i>					0	0	0	17	0	77
	FACILITY RACEWAYS		62,500.00	SF	0		\$0	\$0	\$0	\$1,062,500	\$0	\$1,062,500
		<i>U.C. per SF</i>					0	0	0	6.36	0	6.36
	FACILITY WIRE & CABLE		62,500.00	SF	0		\$0	\$0	\$0	\$397,500	\$0	\$397.500
		<i>U.C. per SF</i>					0	0	0	8.75	0	8.75
	FACILITY LIGHTING		62,500.00	SF	0		\$0	\$0	\$0	\$546,875	\$0	\$546,875
		<i>U.C. per SF</i>					0	0	0	5.45	0	5.45
	FACILITY MISC. (TELEPHONE, LIGHTNING PROTECTION, ETC.)		62,500.00	SF	0		\$0	\$0	\$0	\$340,625	\$0	\$340,625
	Subtotal						\$0	\$0	\$0	\$2,347,500	\$0	\$2,347,500
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$2,347,500
	Escalation						\$0	\$0	\$0	\$313,626	\$0	\$313,626
	Contingency						\$0	\$0	\$0	\$1,424,203	\$0	\$1,424,203
— Total	4.2.01.16.01 WRPF - GENERAL FACILITIES ELECTRICAL				0		\$0	\$0	\$0	\$4,085,329	\$0	\$4,085,329

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.01.1 6.02.1 SWITCHGEAR</u>												
	ELEC					<i>U.C. per Ea</i>						
					160	\$35.89	5742.4	5000	56000	0	0	66742.4
MCC-2000, 4000 AMP			1.00	Ea	160	CN-ELEC	\$5,742	\$5,000	\$56,000	\$0	\$0	\$66,742
Memo: Estimate is based on R. S. Means and G. E. Buy Log for material pricing. The estimate assumes this gear will have a HPS for a main breaker, will require metering, and will be gfci protected. All panel pricing is based on the above listed sources.												
	ELEC				24	\$35.89	861.36	0	6500	0	0	7361.36
SMCC-0082.600 AMP			1.00	Ea	24	CN-ELEC	\$861	\$0	\$6,500	\$0	\$0	\$7,361
	ELEC				24	\$35.89	861.36	0	6500	0	0	7361.36
PP-2000, 600 AMP			1.00	Ea	24	CN-ELEC	\$861	\$0	\$6,500	\$0	\$0	\$7,361
Memo: Assume this will be a 4000 amp switchboard. 5000 amp is a non standard unit and pricing is not available.												
	ELEC				0		0	0	46000	0	0	46000
BUS-5001-COM, 4000 AMP			1.00	Ea	0	CN-ELEC	\$0	\$0	\$46,000	\$0	\$0	\$46,000
	ELEC				0		0	0	56000	0	0	56000
BUS-5000-COM. 4000 AMP			1.00	Ea	0	CN-ELEC	\$0	\$0	\$56,000	\$0	\$0	\$56,000
	ELEC				0		0	0	35000	0	0	35000
BUS-5000-SB, 1000AMP			1.00	Ea	0	CN-ELEC	\$0	\$0	\$35,000	\$0	\$0	\$35,000
	ELEC				528	\$35.89	574.24	0	5000	0	0	5574.24
480 VOLT DISTRIBUTION PANELS			33.00	Ea	528	CN-ELEC	\$18,950	\$0	\$165,000	\$0	\$0	\$183,950
	ELEC				80	\$35.89	2871.2	0	10000	0	0	12871.2
120/208 PANELS			1.00	Ls	80	CN-ELEC	\$2,871	\$0	\$10,000	\$0	\$0	\$12,871
	ELEC				120	\$35.89	4306.8	0	10000	0	0	14306.8
ALLOWANCE FOR DISCONNECTS AND SMALL STRATERS			1.00	Ls	120	CN-ELEC	\$4,307	\$0	\$10,000	\$0	\$0	\$14,307

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Melt all with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.01.16.02.1 SWITCHGEAR</u>												
	ELEC	U.C. per Ls			40	\$35.89	1435.6	0	5000	0	0	6435.6
	ALLOWANCE FOR SMALL STEP DOWN TRANSFORMERS		1.00	Ls	40	CN-ELEC	\$1,436	\$0	\$5,000	\$0	\$0	\$6,436
<hr/>												
	Subtotal						\$35,029	\$5,000	\$396,000	\$0	\$0	\$436,029
	Sales Tax						\$0	\$0	\$23,760	\$0	\$0	\$23,760
	INEEUSubcontractor Overheads	48.10%					\$16,850	\$2,405	\$201,921	\$0	\$0	\$221,177
<hr/>												
	Subtotal Estimate											5680,965
	Escalation						\$6,931	\$989	\$83,057	\$0	\$0	\$90,977
	Contingency						\$31,474	\$4,493	\$377,167	\$0	\$0	\$413,134
<hr/>												
--Total 4.2.01.16.02.1 SWITCHGEAR					976		\$90,284	\$12,887	\$1,081,905	\$0	\$0	\$1,185,077
<hr/>												
<u>4.2.01.16.02.2 EQUIPMENT CONTROLS</u>												
	ELEC	U.C. per Ls			360	\$35.89	12920.4	0	35000	0	0	47920.4
	PLC CONTROLLER, INCLUDING I/O's, SIGNAL POINTS, TRANSMITTERS		1.00	Ls	360	CN-ELEC	\$12,920	\$0	\$35,000	\$0	\$0	\$47,920
<hr/>												
	Subtotal						\$12,920	\$0	\$35,000	\$0	\$0	\$47,920
	Sales Tax						\$0	\$0	\$2,100	\$0	\$0	\$2,100
	INEEUSubcontractor Overheads	48.10%					\$6,215	\$0	\$17,847	\$0	\$0	\$24,062
<hr/>												
	Subtotal Estimate											\$74,082
	Escalation						\$2,557	\$0	\$7,341	\$0	\$0	\$9,897
	Contingency						\$11,609	\$0	\$33,336	\$0	\$0	\$44,945
<hr/>												
--Total 4.2.01.16.02.2 EQUIPMENT CONTROLS					360		\$33,302	\$0	\$95,623	\$0	\$0	5128,924
<hr/>												
<u>4.2.01.16.02.3 RACEWAYS AND ENCLOSURES</u>												
	ELEC	U.C. per Ls			40	\$35.89	1435.6	0	2000	0	0	3435.6
	ALLOWANCE FOR LARGE JUNCTION BOXES AND GUTTER		1.00	Ls	40	CN-ELEC	\$1,436	\$0	\$2,000	\$0	\$0	\$3,436

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.01.16.02.3 RACEWAYSAND ENCLOSURES</u>												
	ELEC				0.24	\$35.89	8.614	0	3.31	0	0	11.924
	2' GRC WITH FITTINGSAND SUPPORTS		5,100.00	Lf	1,224	CN-ELEC	\$43,929	\$0	\$16,881	\$0	\$0	\$60,810
Memo: The estimate assumes an average size of branch feeder conduits will be 2", and that the average length of the conduit run will be 150 lf.												
	ELEC				0.16	\$35.89	5.742	0	0.52	0	0	6.262
	1/0 THHN COPPER WIRE		1,700.00	Lf	272	CN-ELEC	\$9,762	\$0	\$884	\$0	\$0	\$10,646
<hr/>												
	Subtotal						\$55,127	\$0	\$19,765	\$0	\$0	\$74,892
	Sales Tax						\$0	\$0	\$1,186	\$0	\$0	\$1,186
	INEEUSubcontractorOverheads	48.10%					\$26,518	\$0	\$10,078	\$0	\$0	\$36,597
<hr/>												
	Subtotal Estimate											\$112,674
	Escalation						\$10,908	\$0	\$4,145	\$0	\$0	\$15,053
	Continoencv						\$49,533	\$0	\$18,825	\$0	\$0	\$68,358
<hr/>												
— Total 4.2.01.16.02.3 RACEWAYSAND ENCLOSURES					1,536		\$142,087	\$0	\$54,000	\$0	\$0	\$196,086
<u>4.2.01.16.02.4 CONDUCTORS AND GROUNDING</u>												
	ELEC				0.4	\$35.89	14.356	0	1.22	0	0	15.576
	250 MCM THHN COPPER WIRE FEEDERS		17,000.00	Lf	6,800	CN-ELEC	\$244,052	\$0	\$20,740	\$0	\$0	\$264,792
	ELEC				8	\$35.89	281.12	0	150	0	0	437.12
	ALLOWANCE FOR MOTOR CONNECTIONSAND TESTING		36.00	Ea	288	CN-ELEC	\$10,336	\$0	\$5,400	\$0	\$0	\$15,736
<hr/>												
	Subtotal						\$254,388	\$0	\$26,140	\$0	\$0	\$280,528
	Sales Tax						\$0	\$0	\$1,568	\$0	\$0	\$1,568
	INEEUSubcontractorOverheads	48.10%					\$122,371	\$0	\$13,329	\$0	\$0	\$135,700
<hr/>												
	Subtotal Estimate											\$417,797
	Escalation						\$50,335	\$0	\$5,483	\$0	\$0	\$55,818
	Contingency						\$228,576	\$0	\$24,897	\$0	\$0	\$253,473
<hr/>												
— Total 4.2.01.16.02.4 CONDUCTORS AND GROUNDING					7,088		\$655,670	\$0	\$71,417	\$0	\$0	\$727,087

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>EquipDment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.01.16.02.5 TESTING</u>												
	ELEC	<i>U.C. per ls</i>			<i>200</i>	<i>\$35.89</i>	<i>7178</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>7178</i>
	Testing of systems and equipment		1.00	ls	200	CN-ELEC	\$7,178	\$0	\$0	\$0	\$0	\$7,178
Subtotal							\$7,178	\$0	\$0	\$0	\$0	\$7,178
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEL/Subcontractor Overheads							\$3,453	\$0	\$0	\$0	\$0	\$3,453
Subtotal Estimate												\$10,631
Escalation							\$1,420	\$0	\$0	\$0	\$0	\$1,420
Contingency							\$6,450	\$0	\$0	\$0	\$0	\$6,450
—Total 4.2.01.16.02.5 TESTING					200		\$18,501	\$0	\$0	\$0	\$0	\$18,501

4.2.01.16.03 WRPf - MONITORING AND CONTROLS

Memo: *Installation, raceways, and cabling @ 50% of I&C procurement cost.*

ELEC		U.C. perLS		0	0	0	80450	0	80450	
I&C INSTALLATION, RACEWAYS, & CABLING		1.00	LS	0	\$0	\$0	\$0	\$80,450	\$0	\$80,450
Subtotal					\$0	\$0	\$0	\$80,450	\$0	\$80,450
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractor Overheads		48.10%			\$0	\$0	\$0	\$38,700	\$0	\$38,700
Subtotal Estimate										\$119,150
Escalation					\$0	\$0	\$0	\$15,918	\$0	\$15,918
Continaency					\$0	\$0	\$0	\$72,287	\$0	\$72,287
— Total 4.2.01.16.03 WRPf - MONITORINGAND CONTROLS				0	\$0	\$0	\$0	\$207,355	\$0	\$207,355

4.2.01.16.04 WRPf - CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION

	<i>U.C. per EA</i>				0	0	0	20185	0	20185
CRITICALITY SYSTEM INSTALLATION		3.00	EA	0	\$0	\$0	\$0	\$60,555	\$0	\$60,555
Memo: Based on the GEM project installation costs for criticality equipment.										

Memo: Based on the GEM project installation costs for criticality equipment.

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Melt all with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Lrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.01.16.04 WRPF - CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION												
		<i>U.C. per LS</i>										
	RADIOLOGICAL MONITORING EQUIPMENT INSTALLATION		1.00	LS	0			0	0	0	16349	16349
								\$0	\$0	\$0	\$16,349	\$16,349
Subtotal								\$0	\$0	\$0	\$76,904	\$76,904
Sales Tax								\$0	\$0	\$0	\$0	\$0
INEEUSubcontractor Overheads							0.00%	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate								\$0	\$0	\$0	\$10,274	\$10,274
Escalation								\$0	\$0	\$0	\$46,657	\$46,657
Contingency								\$0	\$0	\$0	\$0	\$0
— Total	4.2.01.16.04 WRPF - CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION				0			\$0	\$0	\$0	\$133,835	\$133,835

4.2.01.16.05 WRPF - CCTV MONITORING SYSTEM

Memo: Costs are based on the GEM project calculated square footage.

		<i>U.C. per SF</i>										
	CCTV MONITORING SYSTEM-INSTALLATION LABOR		62,500.00	SF	0			0	0	0	1.36	1.36
								\$0	\$0	\$0	\$85,000	\$85,000
Memo Unit costs are based on the GEM project Camera equipment costs are included in the procurement WBS.												
Subtotal								\$0	\$0	\$0	\$85,000	\$85,000
Sales Tax								\$0	\$0	\$0	\$0	\$0
INEEUSubcontractor Overheads							0.00%	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate								\$0	\$0	\$0	\$11,356	\$11,356
Escalation								\$0	\$0	\$0	\$51,569	\$51,569
Contingency								\$0	\$0	\$0	\$0	\$0
— Total	4.2.01.16.05 WRPF - CCTV MONITORING SYSTEM				0			\$0	\$0	\$0	\$147,925	\$147,925

4.2.02.01 TDF - GENERAL CONDITIONS

		<i>U.C. per HRS</i>										
	SUPERVISION		25,604.00	HRS	0.12	\$40.00	4.8	0	0	0	0	4.8
					3,072	CN-SUPR	\$122,899	\$0	\$0	\$0	\$0	\$122,899
Memo: @ 12% of labor hrs.												

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage 111 Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>DescriDtion</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.02.01 TDF - GENERAL CONDITIONS												
	GEN		<i>U.C. per \$</i>									
	Mobilization & Demobilization		3,001,000.00	\$	0	CN-SKWK	\$0	\$0	\$0	0.006	\$0	0.006
Memo: Mobilization/demobilization costs @ .6% of direct construction\$.												
	GEN		<i>U.C. per HRS</i>									
	CONSTRUCTIONEQUIPMENT ALLOWANCE		25,604.00	HRS	0		\$0	\$102,416	\$0	\$0	\$0	\$102,416
Memo: @ \$2.50 /LABOR HOUR.												
	GEN		<i>U.C. per \$</i>									
	SMALL TOOLS & CONSUMABLES		230,439.00	\$	0		\$0	\$0	\$9,218	\$0	\$0	\$9,218
Memo: @ 4% of construction labor \$.												
	GEN		<i>U.C. per HRS</i>									
	GENERAL CLEANUP		25,604.00	HRS	0.08	\$31.58 CN-LABR	2.526	\$0	\$0	\$0	\$0	2.526
Memo: @ 8% of constructionlabor hours												
	GEN		<i>U.C. per HRS</i>									
	CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE		25,604.00	HRS	0.05	\$34.52 CN-SKWK	1.726	\$0	\$0	\$0	\$0	1.726
Memo: @ 5% of labor hours.												
Subtotal							\$231,778	\$102,416	\$9,218	\$18,006	\$0	\$361,417
Sales Tax							\$0	\$0	\$553	\$0	\$0	\$553
INEEUSubcontractor Overheads							\$67,285	\$29,731	\$2,836	\$5,227	\$0	\$105,080
Subtotal Estimate												\$467,050
Escalation							\$39,955	\$17,655	\$1,684	\$3,104	\$0	\$62,398
Contingency							\$181,438	\$80,172	\$7,649	\$14,095	\$0	\$283,354
— Total 4.2.02.01 TDF - GENERAL CONDITIONS					6,401		\$520,456	\$229,975	\$21,940	\$40,432	\$0	\$812,803

4.2.02.02 TDF - SITEWORK

	DIRT		<i>U.C. per CY</i>									
	FOUNDATIONEXCAVATION		925.00	CY	0		\$0	\$0	\$0	3.51	\$0	3.51
	DIRT		<i>U.C. per CY</i>									
	FOUNDATIONBACKFILL& COMPACT		824.00	CY	0		\$0	\$0	\$0	13.87	\$0	13.87

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Melt a//w/Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.02.02 TDF - SITEWORK												
	DIRT	<i>U.C. per CY</i>					0	0	0	1.8	0	1.8
	SPREAD EXCESS EXCAVATED MATERIAL		101.00	CY	0		\$0	\$0	\$0	\$1 82	\$0	\$1 82
Subtotal							\$0	\$0	\$0	\$14,857	\$0	\$14,857
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractor Overheads							\$0	\$0	\$0	\$6,230	\$0	\$6,230
Subtotal Estimate												\$21,088
Escalation							\$0	\$0	\$0	\$2,817	\$0	\$2,817
Contingency							\$0	\$0	\$0	\$12,794	\$0	\$12,794
— Total 4.2.02.02TDF - SITEWORK					0		\$0	\$0	\$0	\$36,699	\$0	\$36,699
4.2.02.03TDF - CONCRETE												
	FOUNDATIONWALLS	GEN					0	0	0	430	0	430
		<i>U.C. per CY</i>	45.00	CY	0		\$0	\$0	\$0	\$19,350	\$0	\$19,350
	COLUMN FOOTINGS	GEN					0	0	0	430	0	430
		<i>U.C. per CY</i>	56.00	CY	0		\$0	\$0	\$0	\$24,080	\$0	\$24,080
	FLOORS	GEN					0	0	0	430	0	430
		<i>U.C. per CY</i>	178.00	CY	0		\$0	\$0	\$0	\$76,540	\$0	\$76,540
Subtotal							\$0	\$0	\$0	\$1 19,970	\$0	\$1 19,970
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractor Overheads							\$0	\$0	\$0	\$34,827	\$0	\$34,827
Subtotal Estimate												\$154,797
Escalation							\$0	\$0	\$0	\$20,681	\$0	\$20,681
Contingency							\$0	\$0	\$0	\$93,914	\$0	\$93,914
— Total 4.2.02.03TDF - CONCRETE					0		\$0	\$0	\$0	\$269,392	\$0	\$269,392

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.02.05 TDF - METALS												
	STRUCTURAL STEEL	STEEL	U.C. per TONS		10.2	\$42.71	435.676	241.57	1668	0	0	2345.246
			51.00	TONS	520	STEEL1	\$22,219	\$12,320	\$85,068	\$0	\$0	\$119,608
	ROOF DECK	STEEL	U.C. per SF		0.012	\$42.71	0.519	0.288	2.683	0	0	3.49
			7,200.00	SF	87	STEEL1	\$3,737	\$2,072	\$19,318	\$0	\$0	\$25,126
Subtotal							\$25,956	\$14,392	\$104,386	\$0	\$0	\$144,734
Sales Tax							\$0	\$0	\$6,263	\$0	\$0	\$6,263
INEEUSubcontractor Overheads							\$10,884	\$6,035	\$46,398	\$0	\$0	\$63,317
Subtotal Estimate												\$214,314
Escalation							\$4,922	\$2,729	\$20,981	\$0	\$0	\$28,632
Contingency							\$22,351	\$12,393	\$95,279	\$0	\$0	\$130,022
—Total 4.2.02.05 TDF - METALS					608		\$64,113	\$35,549	\$273,307	\$0	\$0	\$372,969

4.2.02.07 TDF -THERMAL & MOISTURE PROTECTION

	ROOF INSULATION	ROOF	U.C. per SF				0	0	0	0	1.931	1.931
			7,200.00	SF	0		\$0	\$0	\$0	\$0	\$13,905	\$13,905
	ROOFING	ROOF	U.C. per SF				0	0	0	0	2.938	2.938
			7,200.00	SF	0		\$0	\$0	\$0	\$0	\$21,150	\$21,150

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

Code	Description	Contractor	Qty	UOM	Hrs	Resource	Labor	Equipment	Material	Subcontractor	Other	TOTAL
4.2.02.07 TDF - THERMAL & MOISTURE PROTECTION												
	STEEL	U.C. per SF			0.068	\$42.71	2.883	1.599	13.94	0	0	18.422
	SANDWICH WALL PANELS		11,040.00	SF	745	STEEL1	\$31,830	\$17,649	\$153,898	\$0	\$0	\$203,376
Subtotal							\$31,830	\$17,649	\$153,898	\$0	\$35,055	\$238,432
Sales Tax							\$0	\$0	\$9,234	\$0	\$0	\$9,234
INEEU Subcontractor Overheads							\$13,347	\$7,401	\$68,406	\$0	\$0	\$89,154
Subtotal Estimate												\$336,819
Escalation							\$6,036	\$3,347	\$30,933	\$0	\$4,683	\$44,999
Contingency							\$27,409	\$15,197	\$140,471	\$0	\$21,268	\$204,345
— Total 4.2.02.07 TDF - THERMAL & MOISTURE PROTECTION					745		\$78,621	\$43,593	\$402,942	\$0	\$61,006	\$586,163

4.2.02.08 TDF - DOORS & WINDOWS

	GEN	U.C. per EA			6.885	\$35.81	246.552	0	903.89	0	0	1150.442
	PERSONNEL DOORS 3'X7'		10.00	EA	69	CN-CARP	\$2,466	\$0	\$9,039	\$0	\$0	\$11,504
	GEN	U.C. per EA					0	0	0	3643.75	0	3643.75
	8'X12' OH DOOR W/ MOTOR OPERATOR		3.00	EA	0		\$0	\$0	\$0	\$10,931	\$0	\$10,931
	GEN	U.C. per EA					0	0	0	4014.75	0	4014.75
	12'X12' OH DOOR W/ OPERATOR		1.00	EA	0		\$0	\$0	\$0	\$4,015	\$0	\$4,015
Subtotal							\$2,466	\$0	\$9,039	\$14,946	\$0	\$26,450
Sales Tax							\$0	\$0	\$542	\$0	\$0	\$542
INEEU Subcontractor Overheads							\$716	\$0	\$2,781	\$4,339	\$0	\$7,836
Subtotal Estimate												\$34,829
Escalation							\$425	\$0	\$1,652	\$2,576	\$0	\$4,653
Contingency							\$1,930	\$0	\$7,500	\$11,700	\$0	\$21,130
— Total 4.2.02.08 TDF - DOORS & WINDOWS					69		\$5,536	\$0	\$21,515	\$33,561	\$0	\$60,612

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.02.15.01.01 TDF - INSTALL HVAC EQUIPMENT& DUCTWORK												
	HVAC	<i>U.C. per LBS</i>			<i>0.08</i>	<i>\$36.82</i>	<i>2.946</i>	<i>0.3</i>	<i>0.75</i>	<i>0</i>	<i>0</i>	<i>3.996</i>
	GALVANIZED STEEL DUCTWORK (BASED ON 3 LBS/SF)		21,600.00	LBS	1,728	CN-SHEE	\$63,625	\$6,480	\$16,200	\$0	\$0	\$86,305
	HVAC	<i>U.C. per EA</i>			<i>54</i>	<i>\$36.82</i>	<i>1988.28</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>1988.28</i>
	AIR HANDLING UNIT 20,000 CFM (ZONE I AREA)		3.00	EA	162	CN-SHEE	\$5,965	\$0	\$0	\$0	\$0	\$5,965
	HVAC	<i>U.C. per EA</i>			<i>10</i>	<i>\$36.82</i>	<i>368.2</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>368.2</i>
	275 kw ELECTRIC HEATER (ZONE I AREA)		1.00	EA	10	CN-SHEE	\$368	\$0	\$0	\$0	\$0	\$368
	HVAC	<i>U.C. per EA</i>			<i>140</i>	<i>\$36.82</i>	<i>5154.8</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>5154.8</i>
	HEPA FILTER (4 HIGH X 5 WIDE) 20,000 CFM (ZONE I AREA)		1.00	EA	140	CN-SHEE	\$5,155	\$0	\$0	\$0	\$0	\$5,155
	HVAC	<i>U.C. per EA</i>			<i>60</i>	<i>\$36.82</i>	<i>2209.2</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>2209.2</i>
	EXHAUST FAN 40 HP		3.00	EA	180	CN-SHEE	\$6,628	\$0	\$0	\$0	\$0	\$6,628
	HVAC	<i>U.C. per EA</i>			<i>24</i>	<i>\$36.82</i>	<i>883.68</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>883.68</i>
	HEPA FILTER (1 HIGH X 1 WIDE) 150 CFM (ZONE III AREA)		1.00	EA	24	CN-SHEE	\$884	\$0	\$0	\$0	\$0	\$884
	HVAC	<i>U.C. per EA</i>			<i>10</i>	<i>\$36.82</i>	<i>368.2</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>368.2</i>
	EXHAUST FAN 1/2 HP (ZONE III AREA)		3.00	EA	30	CN-SHEE	\$1,105	\$0	\$0	\$0	\$0	\$1,105
Subtotal							\$242,791	\$12,960	\$59,400	\$0	\$0	\$315,151
Sales Tax							\$0	\$0	\$3,564	\$0	\$0	\$3,564
INEEL/Subcontractor Overheads							\$110,799	\$5,914	\$28,734	\$0	\$0	\$145,448
Subtotal Estimate												546,163
Escalation							\$47,240	\$2,522	\$12,251	\$0	\$0	\$62,012
Contingency							\$214,519	\$11,451	\$55,632	\$0	\$0	\$281,603
— Total 4.2.02.15.01.01 TDF - INSTALL HVAC EQUIPMENT& DUCTWORK					6,594		\$615,349	\$32,847	\$159,581	\$0	\$0	\$807,777

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.02.15.01.02TDF - EXHAUST STACK												
	EXHAUST STACK 40" X 65 FT HIGH (C.S.) INCLUDING BASE		41,393.00	LBS	0		0	0	0	3.94	0	3.94
							\$0	\$0	\$0	\$1 63,088	\$0	\$163,088
Memo: Costs are based on the exhaust stack built and installed for the GEM project, but sized accordingly to support this Stage III project. Assume the stack base to be 105" in dia. and a 40" dia for the main stack section x 65 ft high, all fabricated from carbon steel materials. Estimated weight including base to be around 41,393lbs.												
	INSTALLATION OF EXHAUST STACK		41,393.00	LBS	0		0	0	0	2.3	0	2.3
							\$0	\$0	\$0	\$95,204	\$0	\$95,204
Memo: Stack installation costs are based on the GEM project, and increased accordingly to the new stack ROM design dimensions. Estimated weight, including base 41,393lbs												
Subtotal							\$0	\$0	\$0	\$258,292	\$0	\$258,292
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$258,292
Escalation							\$0	\$0	\$0	\$34,508	\$0	\$34,508
Contingency							\$0	\$0	\$0	\$1 56,703	\$0	\$156,703
— Total 4.2.02.15.01.02TDF - EXHAUST STACK					0		\$0	\$0	\$0	\$449,503	\$0	\$449,503

4.2.02.15.01.03TDF - EMISSIONS NOC MONITORING

Memo: Based on the GEM project design and cost. Assume the GEM project system will be sufficient, not cost adjustment needed for larger stack.

EXHAUST STACK MONITORING EQUIPMENT	U.C. per EA	1.00	EA	0		0	0	160000	0	0	160000
						\$0	\$0	\$160,000	\$0	\$0	\$160,000
INSTALLATION OF MONITORING EQUIPMENT	U.C. per LS	1.00	LS	0		0	0	0	9000	0	9000
						\$0	\$0	\$0	\$9,000	\$0	\$9,000

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.02.15.01.03 TDF • EMISSIONS NOC MONITORING</u>												
Memo: Based on the GEM project design and cost. Assume the GEM project system will be sufficient, not cost adjustment needed for larger stack.												
	VOC MONITORING EQUIPMENT	U.C. per LS	1.00	LS	0		\$0	\$0	\$0	100000	\$0	100000
Memo: Cost are based on an allowance provided by Ryan McMurtrey, Ryan has experience in this type of system on other projects of this nature.												
Subtotal							\$0	\$0	\$160,000	\$109,000	\$0	\$269,000
Sales Tax							\$0	\$0	\$9,600	\$0	\$0	\$9,600
INEEUSubcontractorOverheads							\$0	\$0	\$0	\$0	\$0	\$0
<hr/>												
Subtotal Estimate												\$278,600
Escalation							\$0	\$0	\$22,659	\$14,562	\$0	\$37,221
Contingency							\$0	\$0	\$102,895	\$66,129	\$0	\$169,024
<hr/>												
— Total 4.2.02.15.01.03 TDF • EMISSIONS NOC MONITORING					0		\$0	\$0	\$295,153	\$189,692	\$0	\$484,845

4.2.02.15.02 TDF - FIRE PROTECTION

Memo: Costs are based on contacting a local fire protection vendor that has provided many hours of time as a consultant for the INEEL. This company has also design and installed many fire protection systems at the INEEL, as well as the GEM project. Fire system control costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility.

	TDF-FACILITY FIRE SYSTEM CONTROLS	U.C. per SF	7,200.00	SF	0		\$0	\$0	\$0	34	\$0	34
Memo: Cost are based on GEM Project and include subcontract indirects.												
	TDF BUILDING-DRY PIPE FIRE PROTECTION	U.C. per SF	7,200.00	SF	0	CN-SPRI	\$0	\$0	\$0	3.65	\$0	3.65
	TDF BUILDING-DRY PIPE F.P. (SECONDARY COVERAGE UNDER EQUIPMENT)	U.C. per SF	3,600.00	SF	0	CN-SPRI	\$0	\$0	\$0	3.65	\$0	3.65
	TDF BUILDING- FEED MAINS	U.C. per LF	100.00	LF	0	CN-SPRI	\$0	\$0	\$0	65.3	\$0	65.3

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action
Stage III Project Treatment-Melhall with Thermal Disorption Option**
Project Location: **INEEL-RWMC**
Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
Prepared By: **R.D. ADAMS / S.N. WASLEY**
Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.02.15.02 TDF - FIRE PROTECTION</u>												
Memo: Costs are based on contacting a local fire protection vendor that has provided many hours of time as a consultant for the INEEL. This company has also design and Installed many fire protection systems at the INEEL, as well as the GEM project. Fire system control costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility.												
		U.C. per CF					0	0	0	60.35	0	60.35
	TDF GLOVEBOX F.P. MIST SYSTEM		588.00	CF	0		\$0	\$0	\$0	\$35,486	\$0	\$35,486
Memo: Cost per cubic foot is based on the GEM facility glovebox fire protection misting system, and include subcontract indirects.												
Subtotal							\$0	\$0	\$0	\$105,916	\$0	\$105,916
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractorOverheads							\$0	\$0	\$0	\$19,268	\$0	\$19,268
Subtotal Estimate												\$125,184
Escalation							\$0	\$0	\$0	\$16,725	\$0	\$16,725
Contingency							\$0	\$0	\$0	\$75,948	\$0	\$75,948
—Total 4.2.02.15.02 TDF - FIRE PROTECTION					0		\$0	\$0	\$0	\$217,856	\$0	\$217,856
<u>4.2.02.15.03 TDF - PLANT AIR</u>												
Memo: Costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility. Equipment cost for the compressor is by the retrieval project.												
		U.C. per SF					0	0	0	2.04	0	2.04
	TDF -PLANT AIR DIST. SYSTEM		7,200.00	SF	0		\$0	\$0	\$0	\$14,688	\$0	\$14,688
Subtotal							\$0	\$0	\$0	\$14,688	\$0	\$14,688
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractorOverheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$14,688
Escalation							\$0	\$0	\$0	\$1,962	\$0	\$1,962
Contingency							\$0	\$0	\$0	\$58,911	\$0	\$58,911
—Total 4.2.02.15.03 TDF - PLANT AIR					0		\$0	\$0	\$0	\$25,561	\$0	\$25,561

DETAIL ITEM REPORT

Project Name: *OU 7-10 Staged Interim Action*
Stage III Project Treatment-Melt all With Thermal Disorption Option
 Project Location: *INEEL-RWMC*
 Estimate Number: **5974-2 (2b+3aP)**

Client: *S. L. Austad*
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: *Project Support*

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.02.15.04 TDF • BREATHING AIR</u>												
Memo: <i>Costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility. No costs for the breathing air compressor have been included, assume provided to the project by the BBWI equipment pool at no cost to this project.</i>												
	TDF-BREATHING AIR DIST. SYSTEM	U.C. per SF	7,200.00	SF	0		0 \$0	0 \$0	0 \$0	112 \$80,640	0 \$0	11.2 \$80,640
Subtotal							\$0	\$0	\$0	\$80,640	\$0	\$80,640
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$80,640
Escalation							\$0	\$0	\$0	\$10,774	\$0	\$10,774
Contingency							\$0	\$0	\$0	\$48,923	\$0	\$48,923
—Total 4.2.02.15.04 TDF • BREATHING AIR					0		\$0	\$0	\$0	\$140,337	\$0	\$140,337

TDF • PROCESS PIPING

Memo: *Allowance is based on previous detail take-off process piping system.*

	PIPE	U.C. per SF	4,800.00	SF	0.182 a74	\$39.33 CN-PIPE	7.758 \$34,359	0 \$0	32.7 \$156,960	0 \$0	0 \$0	39.858 \$191,319
Subtotal							\$34,359	\$0	\$156,960	\$0	\$0	\$191,319
Sales Tax							\$0	\$0	\$9,418	\$0	\$0	\$9,418
INEEL Subcontractor Overheads							\$16,528	\$0	\$80,034	\$0	\$0	\$96,562
Subtotal Estimate												\$297,298
Escalation							\$6,798	\$0	\$32,921	\$0	\$0	\$39,719
Contingency							\$30,872	\$0	\$149,495	\$0	\$0	\$180,368
—Total TDF • PROCESS PIPING					074		\$88,557	\$0	\$428,828	\$0	\$0	\$517,385

4.2.02.16.01 TDF • GENERAL FACILITIES ELECTRICAL

Memo: *Costs are based on the GEM project calculated square footage.*

	FACILITY RACEWAYS	U.C. per SF	7,200.00	SF	0		0 \$0	0 \$0	0 \$0	17 \$122,400	0 \$0	77 \$122,400
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DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.02.16.01 TDF - GENERAL FACILITIES ELECTRICAL												
Memo: Costs are based on the GEM project calculated square footage.												
	FACILITY WIRE & CABLE	U.C. per SF	7,200.00	SF	0		\$0	\$0	\$0	6.36	0	6.36
							\$0	\$0	\$0	\$45,792	\$0	\$45,792
	FACILITY LIGHTING	U.C. per SF	7,200.00	SF	0		\$0	\$0	\$0	8.75	0	8.75
							\$0	\$0	\$0	\$63,000	\$0	\$63,000
	FACILITY MISC. (TELEPHONE, LIGHTNING PROTECTION, ETC.)	U.C. per SF	7,200.00	SF	0		\$0	\$0	\$0	5.45	0	5.45
							\$0	\$0	\$0	\$39,240	\$0	\$39,240
Subtotal							\$0	\$0	\$0	\$270,432	\$0	\$270,432
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractorOverheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$270,432
Escalation							\$0	\$0	\$0	\$36,130	\$0	\$36,130
Contingency							\$0	\$0	\$0	\$164,068	\$0	\$164,068
—Total 4.2.02.16.01 TDF * GENERAL FACILITIES ELECTRICAL					0		\$0	\$0	\$0	\$470,630	\$0	\$470,630
4.2.02.16.03 TDF - MONITORING AND CONTROLS												
Memo: Installation, raceways, and cabling @ 50% of I&C procurement cost.												
	I&C INSTALLATION, RACEWAYS, & CABLING	U.C. per LS	1.00	LS	0		\$0	\$0	\$0	83625	0	83625
							\$0	\$0	\$0	\$83,625	\$0	\$83,625
Subtotal							\$0	\$0	\$0	\$83,625	\$0	\$83,625
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$83,625
Escalation							\$0	\$0	\$0	\$1,172	\$0	\$1,172
Contingency							\$0	\$0	\$0	\$50,734	\$0	\$50,734
—Total 4.2.02.16.03 TDF * MONITORING AND CONTROLS					0		\$0	\$0	\$0	\$145,532	\$0	\$145,532

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.02.16.04 TDF • CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION</u>												
	CRITICALITY SYSTEM INSTALLATION		3.00	EA	0		0 \$0	0 \$0	0 \$0	20185 \$60,555	0 \$0	20185 \$60,555
Memo: Based on the GEM project installation costs for criticality equipment.												
	RADIOLOGICAL MONITORING EQUIPMENT INSTALLATION		1.00	LS	0		0 \$0	0 \$0	0 \$0	16349 \$16,349	0 \$0	16349 \$16,349
<hr/>												
	Subtotal						\$0	\$0	\$0	\$76,904	\$0	\$76,904
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
<hr/>												
	Subtotal Estimate						\$0	\$0	\$0	\$10,274	\$0	\$76,904
	Escalation						\$0	\$0	\$0	\$46,657	\$0	\$10,274
	Contingency						\$0	\$0	\$0	\$0	\$0	\$46,657
<hr/>												
--- Total	4.2.02.16.04 TDF • CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION				0		\$0	\$0	\$0	\$133,035	\$0	\$133,835
<u>4.2.02.16.04 TDF • CCTV MONITORING SYSTEM</u>												
Memo: Costs are based on the GEM project calculated square footage.												
	CCTV MONITORING SYSTEM-INSTALLATION LABOR		7,200.00	SF	0		0 \$0	0 \$0	0 \$0	1.36 \$9,792	0 \$0	1.36 \$9,792
Memo: Unit costs are based on the GEM project. Camera equipment costs are included in the procurement WBS												
<hr/>												
	Subtotal						\$0	\$0	\$0	\$9,792	\$0	\$9,792
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
<hr/>												
	Subtotal Estimate						\$0	\$0	\$0	\$1,308	\$0	\$9,792
	Escalation						\$0	\$0	\$0	\$5,941	\$0	\$1,308
	Contingency						\$0	\$0	\$0	\$0	\$0	\$5,941
<hr/>												
--- Total	4.2.02.16.04 TDF • CCTV MONITORING SYSTEM				0		\$0	\$0	\$0	\$17,041	\$0	\$17,041

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.04.01 MELTER - GENERAL CONDITIONS												
	SUPERVISION	GEN			<i>U.C. per HRS</i>							
			109,817.00	HRS	0.12	\$40.00	4.8	0	0	0	0	4.8
					13.178	CN-SUPR	\$527,122	\$0	\$0	\$0	\$0	5527.122
Memo: @ 12% of labor hrs.												
	Mobilization & Demobilization	GEN			<i>U.C. per \$</i>		0	0	0	0.006	0	0.006
			13,775,182.00	\$	0	CN-SKWK	\$0	\$0	\$0	\$82,651	\$0	\$82,651
Memo: Mobilization/demobilization costs @ .6% of direct construction \$.												
	CONSTRUCTION EQUIPMENT ALLOWANCE	GEN			<i>U.C. per HRS</i>		0	4	0	0	0	4
			109,817.00	HRS	0		\$0	\$439,268	\$0	\$0	\$0	\$439,268
Memo: @ \$2.50 LABOR HOUR.												
	SMALL TOOLS & CONSUMABLES	GEN			<i>U.C. per \$</i>		0	0	0.04	0	0	0.04
			6,230,069.00	\$	0		\$0	\$0	\$249,203	\$0	\$0	\$249,203
Memo: @ 4% of construction labor \$.												
	GENERAL CLEANUP	GEN			<i>U.C. per HRS</i>		2.526	0	0	0	0	2.526
			109,817.00	HRS	0.08	\$31.58	8,785	\$0	\$0	\$0	\$0	\$277,442
Memo: @ 8% of construction labor hours.												
	CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE	GEN			<i>U.C. per HRS</i>		1.726	0	0	0	0	1.726
			109,817.00	HRS	0.05	\$34.52	5,491	\$0	\$0	\$0	\$0	\$189,544
Memo: @ 5% of labor hours												
Subtotal							\$994,107	\$439,268	\$249,203	\$82,651	\$0	\$1,765,229
Sales Tax							\$0	\$0	\$14,952	\$0	\$0	\$14,952
INEEUSubcontractor Overheads							29.03%	\$288,589	\$127,520	\$76,684	\$23,994	\$516,707
Subtotal Estimate												\$2,296,968
Escalation							\$171,368	\$75,723	\$45,536	\$14,248	\$0	\$306,875
Contingency							\$778,199	\$343,864	\$206,783	\$64,700	\$0	\$1,393,546
---Total 4.2.04.01 MELTER - GENERAL CONDITIONS					27,454		\$2,232,264	\$986,374	\$593,159	\$185,593	\$0	\$3,997,389

4.2.04.02 MELTER - SITEWORK

	FOUNDATION EXCAVATION	DIRT			<i>U.C. per CY</i>		0	0	0	3.51	0	3.51
			8,854.00	CY	0		\$0	\$0	\$0	\$31,078	\$0	\$31,078

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Estimating Services Department

Material Costs where applicable include Idaho State Sales Tax

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DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage 111 Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEV**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.04.02 MELTER - SITEWORK												
	DIRT	<i>U.C. per CY</i>					<i>0</i>	<i>0</i>	<i>0</i>	<i>13.87</i>	<i>0</i>	<i>13.87</i>
	FOUNDATION BACKFILL & COMPACT		7,558.00	CY	0		\$0	\$0	\$0	\$104,829	\$0	\$104,829
	DIRT	<i>U.C. per CY</i>					<i>0</i>	<i>0</i>	<i>0</i>	<i>1.8</i>	<i>0</i>	<i>1.8</i>
	SPREAD EXCESS EXCAVATED MATERIAL		1,296.00	CY	0		\$0	\$0	\$0	\$2,333	\$0	\$2,333
Subtotal							\$0	\$0	\$0	\$138,240	\$0	\$138,240
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractorOverheads							\$0	\$0	\$0	\$57,968	\$0	\$57,968
Subtotal Estimate												\$196,208
Escalation							\$0	\$0	\$0	\$26,213	\$0	\$26,213
Contingency							\$0	\$0	\$0	\$119,037	\$0	\$119,037
Total 4.2.04.02 MELTER - SITEWORK					0		\$0	\$0	\$0	\$341,459	\$0	\$341,459

4.2.04.03 MELTER - CONCRETE

	FOUNDATION WALLS	GEN	<i>U.C. per CY</i>				<i>0</i>	<i>0</i>	<i>0</i>	<i>430</i>	<i>0</i>	<i>430</i>
				415.00	CY	0	\$0	\$0	\$0	\$178,450	\$0	\$178,450
	COLUMN FOOTINGS	GEN	<i>U.C. per CY</i>				<i>0</i>	<i>0</i>	<i>0</i>	<i>430</i>	<i>0</i>	<i>430</i>
				174.00	CY	0	\$0	\$0	\$0	\$74,820	\$0	\$74,820
	FLOORS	GEN	<i>U.C. per CY</i>				<i>0</i>	<i>0</i>	<i>0</i>	<i>430</i>	<i>0</i>	<i>430</i>
				973.00	CY	0	\$0	\$0	\$0	\$418,390	\$0	\$418,390

Project Name: ***OU 7-70 Staged Interim Action
Stage III Project Treatment-Meltall with Thermal Disorption Option***
Project Location: ***INEEL-RWMC***
Estimate Number: ***5974-2 (2b+3aP)***

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage 111 Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.04.07 MELTER-THERMAL & MOISTURE PROTECTION												
	ROOFING	ROOF	<i>U.C. per SF</i>									
			38,270.00	SF	0		\$0	\$0	\$0	\$112,418	\$0	\$112,418
	SANDWICH WALL PANELS	STEEL	<i>U.C. per SF</i>									
			57,170.00	SF	3,859	STEEL1	\$164,830	\$91,393	\$796,950	\$0	\$0	\$1,053,173
Subtotal							\$164,830	\$91,393	\$796,950	\$186,329	\$0	\$1,239,502
Sales Tax							\$0	\$0	\$47,817	\$0	\$0	\$47,817
INEEUSubcontractorOverheads							\$69,118	\$38,324	\$354,236	\$78,133	\$0	\$539,811
Subtotal Estimate												\$1,827,130
Escalation							\$31,255	\$17,330	\$160,187	\$35,332	\$0	\$244,105
Contingency							\$141,934	\$781,698	\$727,422	\$160,446	\$0	\$1,108,501
—Total 4.2.04.07 MELTER-THERMAL & MOISTURE PROTECTION					3,859		\$407,137	\$225,746	\$2,086,612	\$460,241	\$0	\$3,179,735

4.2.04.08 MELTER - DOORS & WINDOWS

	PERSONNEL DOORS 3'X7'	GEN	<i>U.C. per EA</i>									
			9.00	EA	6.885	CN-CARP	\$2,219	\$0	\$903.89	\$0	\$0	\$1150.442
	PERSONNEL DOORS 6'X7'	GEN	<i>U.C. per EA</i>									
			5.00	EA	14.58	CN-CARP	\$2,611	\$0	\$2089.37	\$0	\$0	\$2611.48
	8'X12' OH DOOR W/ MOTOR OPERATOR	GEN	<i>U.C. per EA</i>									
			4.00	EA	0		\$0	\$0	\$0	\$3643.75	\$0	\$3643.75

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.04.08 MELTER - DOORS & WINDOWS												
	GEN	<i>U.C. par EA</i>					0	0	0	40 14.75	0	4014.75
	12'X12' OH DOOR W/ OPERATOR		4.00	EA	0		\$0	\$0	\$0	\$16,059	\$0	\$16,059
Subtotal							\$4,830	\$0	\$18,582	\$30,634	\$0	\$54,045
Sales Tax							\$0	\$0	\$1,115	\$0	\$0	\$1,115
INEEL Subcontractor Overheads							\$1,402	\$0	\$5,718	\$8,893	\$0	\$16,013
Subtotal Estimate												\$71,173
Escalation							\$833	\$0	\$3,395	\$5,281	\$0	\$9,509
Continuancv							\$3,781	\$0	\$15,419	\$23,981	\$0	\$43,180
— Total 4.2.04.08 MELTER - DOORS & WINDOWS					135		\$10,845	\$0	\$44,229	\$68,789	\$0	\$123,862
4.2.04.09 MELTER - FINISHES												
	PAINT	<i>U.C. par SF</i>			0.108	\$38.00	4.104	0	1.07	0	0	5.174
	EPOXY FLOOR COATING		39,362.00	SF	4,251	CN-PNTS	\$161,542	\$0	\$42,117	\$0	\$0	\$203,659
	PAINT	<i>U.C. par SF</i>			0.078	\$38.00	2.964	0	1.14	0	0	4.104
	EPOXY WALL & CEILING COATING		3,508.00	SF	274	CN-PNTS	\$10,398	\$0	\$3,999	\$0	\$0	\$14,397
Subtotal							\$171,939	\$0	\$46,116	\$0	\$0	\$218,056
Sales Tax							\$0	\$0	\$2,767	\$0	\$0	\$2,767
INEEL/Subcontractor Overheads							\$72,099	\$0	\$20,498	\$0	\$0	\$92,598
Subtotal Estimate												\$313,420
Escalation							\$32,604	\$0	\$9,269	\$0	\$0	\$41,873
Continuancv							\$148,056	\$0	\$42,093	\$0	\$0	\$190,149
— Total 4.2.04.09 MELTER - FINISHES					4,525		\$424,698	\$0	\$120,744	\$0	\$0	\$545,442

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Melt all with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEV**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.04.11	MELTER - EQUIPMENT-INSTALL GFE											
Memo: From "Plant Design and Economics for Chemical Engineers," the average installation costs are about 25% of purchase price. Due to the very specialized nature of some of these systems (and the very high system purchase prices), assume installation will be one-half the average or 12.5% of purchase price. This factor will only apply to the non-HVAC and non-I&C equipment. HVAC and I&C equipment installation will be detailed separately.												
	EQUIPMENT INSTALLATION		15,497,443.00	5	0		\$1,937,180	50	\$0	\$0	\$0	\$1,937,180
	Subtotal						\$1,937,180	\$0	\$0	\$0	\$0	\$1,937,180
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$1,937,180
	Escalation						\$258,807	\$0	50	\$0	\$0	\$258,807
	Contingency						\$1,175,267	\$0	50	\$0	\$0	\$1,175,267
— Total	4.2.04.11 MELTER - EQUIPMENT-INSTALL GFE				0		\$3,371,254	\$0	\$0	\$0	\$0	\$3,371,254

4.2.04.15.01.01 MELTER - INSTALL HVAC EQUIPMENT & DUCTWORK

HVAC	U.C. per LBS			0.2	\$36.82	7.364	0.3	2	0	0	9.664
STAINLESS STEEL DUCTWORK (based on 3 lbs/sf)		114,810.00	LBS	22.962	CN-SHEE	\$845,461	\$34,443	\$229,620	\$0	\$0	\$1,109,524
HVAC	U.C. per LBS			0.08	\$36.82	2.946	0.3	0.75	0	0	3.996
GALVANIZED STEEL DUCTWORK (based on 3 lbs/sf)		114,810.00	LBS	9,185	CN-SHEE	\$338,184	\$34,443	\$86,108	\$0	50	\$458,735
HVAC	U.C. per EA			36	\$36.82	1325.52	0	0	0	0	1325.52
Melter facility Zone III HEPA (2x1 housing, 1500 CFM)		1.00	EA	36	CN-SHEE	\$1,326	\$0	\$0	\$0	\$0	\$1,326
HVAC	U.C. per EA			120	\$36.82	4418.4	0	0	0	0	4418.4
Melter facility Zone II HEPA (4x4 housing, 80,000 CFM)		5.00	EA	600	CN-SHEE	522,092	50	50	\$0	\$0	\$22,092
HVAC	U.C. per EA			120	\$36.82	4418.4	0	0	0	0	4418.4
Melter facility Zone I HEPA (4x4 housing, 32,000 CFM)		2.00	EA	240	CN-SHEE	\$8,837	50	50	\$0	\$0	\$8,837
HVAC	U.C. per EA			12	\$36.82	441.84	0	0	0	0	441.84
Melter Facility Zone III exhaust fan-750 CFM		1.00	EA	12	CN-SHEE	\$442	\$0	\$0	\$0	\$0	\$442

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with ThermalDisorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.04.15.01.01 MELTER -INSTALL HVAC EQUIPMENT & DUCTWORK												
	HVAC	<i>U.C. per EA</i>			12	\$36.82	441.84	0	0	0	0	441.84
	Melter Facility Zone III exhaust fan-750 CFM		1.00	EA	12	CN-SHEE	\$442	\$0	\$0	\$0	\$0	\$442
	HVAC	<i>U.C. per EA</i>			12	\$36.82	441.64	0	0	0	0	441.84
	Melter Facility Zone III exhaust fan-750 CFM		1.00	EA	12	CN-SHEE	\$442	\$0	\$0	\$0	\$0	\$442
	HVAC	<i>U.C. per EA</i>			90	\$36.82	3313.8	0	0	0	0	3373.8
	Melter Facility Zone II exhaust fan-40,000 CFM		1.00	EA	90	CN-SHEE	\$3,314	\$0	\$0	\$0	\$0	\$3,314
	HVAC	<i>U.C. per EA</i>			90	\$36.82	3313.8	0	0	0	0	3313.8
	Melter Facility Zone II exhaust fan-40,000 CFM		1.00	EA	90	CN-SHEE	\$3,314	\$0	\$0	\$0	\$0	\$3,314
	HVAC	<i>U.C. per EA</i>			90	\$36.82	3313.8	0	0	0	0	3313.8
	Melter Facility Zone II exhaust fan-40,000 CFM		1.00	EA	90	CN-SHEE	\$3,314	\$0	\$0	\$0	\$0	\$3,314
	HVAC	<i>U.C. per EA</i>			60	\$36.82	2209.2	0	0	0	0	2209.2
	Melter Facility Zone exhaust fan-16,000 CFM		1.00	EA	60	CN-SHEE	\$2,209	\$0	\$0	\$0	\$0	\$2,209
	HVAC	<i>U.C. per EA</i>			60	\$36.82	2209.2	0	0	0	0	2209.2
	Melter Facility Zone exhaust fan-16,000 CFM		1.00	EA	60	CN-SHEE	\$2,209	\$0	\$0	\$0	\$0	\$2,209
	HVAC	<i>U.C. per EA</i>			60	\$36.82	2209.2	0	0	0	0	2209.2
	Melter Facility Zone I exhaust fan-16,000 CFM		1.00	EA	60	CN-SHEE	\$2,209	\$0	\$0	\$0	\$0	\$2,209
	HVAC	<i>U.C. per EA</i>			80	\$36.82	2945.6	0	0	0	0	2945.6
	Melter Facility Zone II air handling unit-40,000 CFM		1.00	EA	80	CN-SHEE	\$2,946	\$0	\$0	\$0	\$0	\$2,946
	HVAC	<i>U.C. per EA</i>			80	\$36.82	2945.6	0	0	0	0	2945.6
	Melter Facility Zone II air handling unit-40,000 CFM		1.00	EA	80	CN-SHEE	\$2,946	\$0	\$0	\$0	\$0	\$2,946
	HVAC	<i>U.C. per EA</i>			80	\$36.82	2945.6	0	0	0	0	2945.6
	Melter Facility Zone II air handling unit-40,000 CFM		1.00	EA	80	CN-SHEE	\$2,946	\$0	\$0	\$0	\$0	\$2,946
	HVAC	<i>U.C. per EA</i>			52	\$36.62	1914.64	0	0	0	0	1914.64
	Melter Facility Zone I air handling unit-16,000 CFM		1.00	EA	52	CN-SHEE	\$1,915	\$0	\$0	\$0	\$0	\$1,915

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with ThermalDisorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.04.15.01.01 MELTER - INSTALL HVAC EQUIPMENT & DUCTWORK												
	HVAC	<i>U.C. per EA</i>			52	\$36.82	1914.64	0	0	0	0	1914.64
Melter Facility Zone	air handling unit-16,000 CFM		1.00	EA	52	CN-SHEE	\$1,915	\$0	\$0	\$0	\$0	\$1,915
	HVAC	<i>U.C. per EA</i>			52	\$36.82	1914.64	0	0	0	0	1914.64
Melter Facility Zone	air handling unit-16,000 CFM		1.00	EA	52	CN-SHEE	\$1,915	\$0	\$0	\$0	\$0	\$1,915
	HVAC	<i>U.C. per EA</i>			10	\$36.82	368.2	0	0	0	0	368.2
Melter Facility Zone II	air handling unit heater		1.00	EA	10	CN-SHEE	\$368	\$0	\$0	\$0	\$0	\$368
	HVAC	<i>U.C. per EA</i>			10	\$36.82	368.2	0	0	0	0	368.2
Melter Facility Zone II	air handling unit heater		1.00	EA	10	CN-SHEE	\$368	\$0	\$0	\$0	\$0	\$368
	HVAC	<i>U.C. per EA</i>			10	\$36.82	368.2	0	0	0	0	368.2
Melter Facility Zone II	air handling unit heater		1.00	EA	10	CN-SHEE	\$368	\$0	\$0	\$0	\$0	\$368
	HVAC	<i>U.C. per EA</i>			10	\$36.82	368.2	0	0	0	0	368.2
Melter Facility Zone I	air handling unit heater		1.00	EA	10	CN-SHEE	\$368	\$0	\$0	\$0	\$0	\$368
	HVAC	<i>U.C. per EA</i>			10	\$36.82	368.2	0	0	0	0	368.2
Melter Facility Zone I	air handling unit heater		1.00	EA	10	CN-SHEE	\$368	\$0	\$0	\$0	\$0	\$368
	HVAC	<i>U.C. per EA</i>			10	\$36.82	368.2	0	0	0	0	368.2
Melter Facility Zone I	air handling unit heater		1.00	EA	10	CN-SHEE	\$368	\$0	\$0	\$0	\$0	\$368
Subtotal							\$1,250,584	\$68,886	\$315,728	\$0	\$0	\$1,635,197
Sales Tax							\$0	\$0	\$18,944	\$0	\$0	\$18,944
INEEUSubcontractor Overheads							45.64% \$570.711	\$31.437	\$152.729	\$0	\$0	\$754.877
Subtotal Estimate												\$2,409,018
Escalation							\$243,325	\$13,403	\$65,117	\$0	\$0	\$321,845
Continaency							\$1,104.961	\$60.865	\$295.701	\$0	\$0	\$1,461.526
— Total 4.2.04.15.01.01 MELTER - INSTALL HVAC EQUIPMENT & DUCTWORK					33,965		\$3,169,581	\$174,590	\$848,218	\$0	\$0	\$4,192,389

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.04.15.01.02 MELTER - EXHAUST STACK</u>												
	EXHAUST STACK 40" X 65 FT HIGH (C.S.J) INCLUDING BASE		41,393.00	LBS	0		0 \$0	0 \$0	0 \$0	3.94 \$163,088	0 \$0	3.94 \$163,088
Memo: Costs are based on the exhaust stack built and installed for the GEM project, but sized accordingly to support this Stage III project. Assume the stack base to be 105" in dia. and a 40" dia for the main stack section x 65 ft high, all fabricated from carbon steel materials. Estimated weight including base to be around 41,393 lbs.												
	INSTALLATION OF EXHAUST STACK		41,393.00	LBS	0		0 \$0	0 \$0	0 \$0	2.3 \$95,204	0 \$0	2.3 \$95,204
Memo: Stack installation costs are based on the GEM project, and increased accordingly to the new stack ROM design dimensions. Estimated weight, including base 41,393 lbs												
Subtotal							\$0	\$0	\$0	\$258,292	\$0	\$258,292
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEU Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$258,292
Escalation							\$0	\$0	\$0	\$34,508	\$0	\$34,508
Contingency							\$0	\$0	\$0	\$156,703	\$0	\$156,703
—Total 4.2.04.15.01.02 MELTER - EXHAUST STACK					0		\$0	\$0	\$0	\$449,503	\$0	\$449,503

4.2.04.15.01.03 MELTER - EMISSIONS NOC MONITORING

Memo: Based on the GEM project design and cost. Assume the GEM project system will be sufficient, not cost adjustment needed for larger stack.

EXHAUST STACK MONITORING EQUIPMENT	U.C. per EA	1.00	EA	0		0 \$0	0 \$0	160000 \$160,000	0 \$0	0 \$0	160000 \$160,000
INSTALLATION OF MONITORING EQUIPMENT	U.C. per LS	1.00	LS	0		0 \$0	0 \$0	0 \$0	9000 \$9,000	0 \$0	9000 \$9,000

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.04.15.01.03	MELTER - EMISSIONS NOC MONITORING											
Memo:	Based on the GEM project design and cost. Assume the GEM project system will be sufficient, not cost adjustment needed for larger stack.											
	VOC MONITORING EQUIPMENT	U.C. per LS	1.00	LS	0		\$0	\$0	\$0	100000	\$0	100000
Memo:	Cost are based on an allowance provided by Ryan McMurtrey, Ryan has experience in this type of system on other projects of this nature.											
							\$0	\$0	\$160,000	\$109,000	\$0	\$269,000
							\$0	\$0	\$9,600	\$0	\$0	\$9,600
INEEL/Subcontractor Overheads							0.00%	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$278,600
Escalation							\$0	\$0	\$22,659	\$14,562	\$0	\$37,221
Contingency							\$0	\$0	\$102,895	\$66,129	\$0	\$169,024
--Total	4.2.04.15.01.03	MELTER - EMISSIONS NOC MONITORING			0		\$0	\$0	\$295,153	\$189,692	\$0	\$484,845

4.2.04.15.02 MELTER - FIRE PROTECTION

Memo: Costs are based on contacting a local fire protection vendor that has provided many hours of time as a consultant for the INEEL. This company has also design and installed many fire protection systems at the INEEL, as well as the GEM project. Fire system control costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility.

	MELTER FACILITY FIRE SYSTEM CONTROLS	U.C. per SF	38,270.00	SF	0		\$0	\$0	\$0	3.4	\$0	3.4
							\$0	\$0	\$0	\$130,118	\$0	\$130,118
	MELTER-DRY PIPE FIRE PROTECTION	U.C. per SF	38,270.00	SF	0	CN-SPRI	\$0	\$0	\$0	3.65	\$0	3.65
							\$0	\$0	\$0	\$139,686	\$0	\$139,686
	MELTER-DRY PIPE FIRE PROTECTION (SECONDARY COVERAGE UNDER EQUIPMENT)	U.C. per SF	38,270.00	SF	0	CN-SPRI	\$0	\$0	\$0	3.65	\$0	3.65
							\$0	\$0	\$0	\$139,686	\$0	\$139,686
	MELTER- FEED MAINS	U.C. per LF	500.00	LF	0	CN-SPRI	\$0	\$0	\$0	65.3	\$0	65.3
							\$0	\$0	\$0	\$32,650	\$0	\$32,650
	MELTER-EXTRA HAZARD FOAM SYSTEM (EQUIPMENT ONLY)	U.C. per LS	1.00	LS	0		\$0	\$0	\$0	100000	\$0	100000
							\$0	\$0	\$0	\$100,000	\$0	\$100,000

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage 111 Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>EquiDment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.04.15.02 MELTER - FIRE PROTECTION												
<i>Memo: Costs are based on contacting a local fire protection vendor that has provided many hours of time as a consultant for the INEEL. This company has also design and Installed many fire protection systems at the INEEL, as well as the GEM project. Fire system control costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility.</i>												
	MELTER-EXTRA HAZARD FOAM PIPING DISTRIBUTION SYSTEM	U.C. per SF	38,270.00	SF	0		0	0	0	4.35	0	4.35
							\$0	\$0	\$0	\$166,475	\$0	\$166,475
	MELTER-EXTRA HAZARD FOAM MONITOR NOZZLES	U.C. per EA	4.00	EA	0		0	0	0	10000	0	10000
							\$0	\$0	\$0	\$40,000	\$0	\$40,000
Subtotal							\$0	\$0	\$0	\$748,614	\$0	\$748,614
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEU Subcontractor Overheads							\$0	\$0	\$0	\$130,840	\$0	\$130,840
Subtotal Estimate												\$879,453
Escalation							\$0	\$0	\$0	\$117,495	\$0	\$117,495
Contingency							\$0	\$0	\$0	\$533,555	\$0	\$533,555
--Total 4.2.04.15.02 MELTER - FIRE PROTECTION					0		\$0	\$0	\$0	\$1,530,503	\$0	\$1,530,503

4.2.04.15.03 MELTER - PLANT AIR

Memo: Costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility. Equipment cost for the compressor is by the retrieval project.

	MELTER BLDG-PLANT AIR DIST. SYSTEM	U.C. per SF	38,270.00	SF	0		0	0	0	2.04	0	2.04
							\$0	\$0	\$0	\$78,071	\$0	\$78,071
Subtotal							\$0	\$0	\$0	\$78,071	\$0	\$78,071
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEU Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$78,071
Escalation							\$0	\$0	\$0	\$10,430	\$0	\$10,430
Contingency							\$0	\$0	\$0	\$47,365	\$0	\$47,365
--Total 4.2.04.15.03 MELTER - PLANT AIR					0		\$0	\$0	\$0	\$135,866	\$0	\$135,866

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Melt all with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.04.15.04 MELTER - BREATHING AIR												
<i>Memo: Costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility. No costs for the breathing air compressor have been included, assume provided to the project by the BBWI equipment pool at no cost to this project.</i>												
	WRP-BREATHINGAIR DIST. SYSTEM	U.C. per SF	38,270.00	SF	0		0	0	0	11.2	0	112
							\$0	\$0	\$0	\$428,624	\$0	\$428,624
Subtotal							\$0	\$0	\$0	\$428,624	\$0	\$428,624
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEL Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$428,624
Escalation							\$0	\$0	\$0	\$57,264	\$0	\$57,264
Contingency							\$0	\$0	\$0	\$260,042	\$0	\$260,042
—Total 4.2.04.15.04 MELTER - BREATHING AIR					0		\$0	\$0	\$0	\$745,930	\$0	\$745,930

MELTER -PROCESS PIPING

Memo: Allowance is based on previous detail takeoff process piping system.

	PIPE	U.C. per SF	20,000.00	SF	0.182	\$39.33	7.158	0	32.7	0	0	39,858
	PROCESS PIPING ALLOWANCE				3,640	CN-PIPE	\$143,161	\$0	\$654,000	\$0	\$0	\$797,161
Subtotal							\$143,161	\$0	\$654,000	\$0	\$0	\$797,161
Sales Tax							\$0	\$0	\$39,240	\$0	\$0	\$39,240
INEEL/Subcontractor Overheads							\$68,866	\$0	\$333,476	\$0	\$0	\$5402,342
Subtotal Estimate												\$1,230,744
Escalation							\$20,327	\$0	\$137,169	\$0	\$0	\$165,496
Contingency							\$128,635	\$0	\$622,898	\$0	\$0	\$751,533
—Total MELTER - PROCESS PIPING					3,640		\$368,989	\$0	\$1,786,703	\$0	\$0	\$2,155,772

4.2.04.16.01 MELTER - GENERAL FACILITIES ELECTRICAL

Memo: Costs are based on the GEM project calculated square footage.

	FACILITY RACEWAYS	U.C. per SF	38,720.00	SF	0		0	0	0	17	0	17
							\$0	\$0	\$0	\$658,240	\$0	\$658,240

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.04.16.01 MELTER - GENERAL FACILITIES ELECTRICAL</u>												
Memo: Costs are based on the GEM project calculated square footage.												
		<i>U.C. per SF</i>										
	FACILITY WIRE & CABLE		38,720.00	SF	0		\$0	\$0	50	6.36 \$246,259	0 \$0	6.36 \$246,259
		<i>U.C. per SF</i>										
	FACILITY LIGHTING		38,720.00	SF	0		\$0	\$0	50	8.75 \$338,800	0 \$0	\$338,800 \$338,800
		<i>U.C. per SF</i>										
	FACILITY MISC. (TELEPHONE, LIGHTNING PROTECTION, ETC.)		38,720.00	SF	0		\$0	\$0	50	5.45 \$211,024	0 \$0	5.45 \$211,024
<hr/>												
	Subtotal						\$0	\$0	\$0	\$1,454,323	\$0	\$1,454,323
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
<hr/>												
	Subtotal Estimate											\$1,454,323
	Escalation						\$0	\$0	\$0	5194,298	\$0	\$194,298
	Contingency						\$0	\$0	\$0	\$882,322	50	\$882,322
<hr/>												
— Total	4.2.04.16.01 MELTER - GENERAL FACILITIES ELECTRICAL				0		\$0	\$0	\$0	\$2,530,943	\$0	\$2,530,943

4.2.04.16.03 MELTER - MONITORING AND CONTROLS

Memo: **Installation**, raceways, and cabling @ 50% of I&C procurement cost.

		<i>U.C. per LS</i>										
	I&C INSTALLATION, RACEWAYS, & CABLING		1.00	LS	0		50	50	\$0	112,250 \$112,250	0 50	112,250 \$112,250
Memo: Installation, raceways, and cabling @ 50% of I&C procurement cost.												

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.04.16.03 MELTER - MONITORING AND CONTROLS												
Memo: Installation, raceways, and cabling @ 50% of I&C procurement cost.												
	Subtotal							\$0	\$0	\$0	\$112,250	\$112,250
	Sales Tax							\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads	0.00%						\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$112,250
	Escalation							\$0	\$0	\$0	\$14,997	\$14,997
	Contingency							\$0	\$0	\$0	\$68,101	\$68,101
--Total 4.2.04.16.03 MELTER - MONITORING AND CONTROLS						0		\$0	\$0	\$0	\$195,347	\$195,347
4.2.04.16.04 MELTER - CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION												
	CRITICALITY SYSTEM INSTALLATION	U.C. per EA	3.00	EA	0			0	0	0	20185	20185
	Memo. Based on the GEM project installation costs for criticality equipment.							\$0	\$0	\$0	\$60,555	\$60,555
	RADIOLOGICAL MONITORING EQUIPMENT INSTALLATION	U.C. per LS	1.00	LS	0			0	0	0	16349	16349
								\$0	\$0	\$0	\$16,349	\$16,349
	Subtotal							\$0	\$0	\$0	\$76,904	\$76,904
	Sales Tax							\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads	0.00%						\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$76,904
	Escalation							\$0	\$0	\$0	\$10,274	\$10,274
	Contingency							\$0	\$0	\$0	\$46,657	\$46,657
— Total 4.2.04.16.04 MELTER - CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION						0		\$0	\$0	\$0	\$133,835	\$133,835

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Melt all with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

Code	Description	Contractor	Qty	UOM	Hrs	Resource	Labor	Eaument	Material	Subcontractor	Other	TOTAL
4.2.04.16.05	MELTER - CCTV MONITORING SYSTEM											
Memo: Costs are based on the GEM project calculated square footage.												
	CCTV MONITORING SYSTEM-INSTALLATION	LABOR	38,270.00	SF	0		\$0	\$0	\$0	1.36	\$0	1.36
Memo: Unit costs are based on the GEM project. Camera equipment costs are included in the procurement WBS.												
	Subtotal						\$0	\$0	\$0	\$52,047	\$0	\$52,047
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractor Overheads						\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate						\$0	\$0	\$0	\$6,954	\$0	\$6,954
	Escalation						\$0	\$0	\$0	\$31,576	\$0	\$31,576
	Contingency						\$0	\$0	\$0	\$0	\$0	\$0
— Total 4.2.04.16.05 MELTER - CCTV MONITORING SYSTEM												
					0		\$0	\$0	\$0	\$90,577	\$0	\$90,577

4.2.06.01 AIRLOCK - GENERAL CONDITIONS

	SUPERVISION	GEN	25,272.00	HRS	3,033	CN-SUPR	\$121,306	\$0	\$0	\$0	\$0	\$121,306
Memo: @ 12% of labor hrs.												
	Mobilization& Demobilization	GEN	2,060,547.00	\$	0	CN-SKWK	\$0	\$0	\$0	\$12,363	\$0	\$12,363
Memo: Mobilization/demobilization costs @ .6% of direct construction\$.												
	CONSTRUCTIONEQUIPMENT ALLOWANCE	GEN	25,272.00	HRS	0		\$0	\$101,088	\$0	\$0	\$0	\$101,088
Memo: @ \$2.50/LABOR HOUR.												
	SMALL TOOLS & CONSUMABLES	GEN	1,027,484.00	\$	0		\$0	\$0	\$41,099	\$0	\$0	\$41,099
Memo: @ 4% of construction labor \$.												
	GENERAL CLEANUP	GEN	25,272.00	HRS	2,022	CN-LABR	\$63,847	\$0	\$0	\$0	\$0	\$63,847
Memo: @ 8% of construction labor hours												

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.06.01 AIRLOCK - GENERAL CONDITIONS												
	GEN				0.05	\$34.52	1.726	0	0	0	0	1.726
	CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE		25,272.00	HRS	1,264	CN-SKWK	\$43,619	\$0	\$0	\$0	\$0	\$43,619
Memo: @ 5% of labor hours.												
	GEN				80	\$34.20	2736	1250	0	0	0	3986
	Craning Allowance- W/ Operator & Oiler		26.00	Wk	2,080	CN-ENGR	\$71,136	\$32,500	\$0	\$0	\$0	\$103,636
<hr/>												
	Subtotal						\$299,908	\$133,588	\$41,099	\$12,363	\$0	\$486,959
	Sales Tax						\$0	\$0	\$2,466	\$0	\$0	\$2,466
	INEEUSubcontractorOverheads	29.03%					\$87,063	\$38,781	\$12,647	\$3,589	\$0	\$142,080
<hr/>												
	Subtotal Estimate						\$51,699	\$23,028	\$7,510	\$2,131	\$0	\$631,505
	Escalation						\$234,772	\$104,574	\$34,103	\$9,678	\$0	\$84,369
	Contingency										\$0	\$383,127
<hr/>												
—Total 4.2.06.01 AIRLOCK - GENERAL CONDITIONS					8,398		\$673,443	\$299,971	\$97,826	\$27,762	\$0	\$1,099,001
<hr/>												
4.2.06.02 AIRLOCK - SITEWORK												
	DIRT						0	0	0	4	0	4
	SF COST FROM RETRIEVAL PORTION		3,860.00	SF	0		\$0	\$0	\$0	\$15,440	\$0	\$15,440
<hr/>												
	Subtotal						\$0	\$0	\$0	\$15,440	\$0	\$15,440
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads	41.93%					\$0	\$0	\$0	\$6,474	\$0	\$6,474
<hr/>												
	Subtotal Estimate						\$0	\$0	\$0	\$2,928	\$0	\$21,914
	Escalation						\$0	\$0	\$0	\$13,295	\$0	\$2,928
	Contingency						\$0	\$0	\$0		\$0	\$13,295
<hr/>												
—Total 4.2.06.02 AIRLOCK - SITEWORK					0		\$0	\$0	\$0	\$38,137	\$0	\$38.1 37
<hr/>												
4.2.06.03 AIRLOCK - CONCRETE												
	GEN						0	0	0	16.28	0	16.28
	SF COST FROM RETRIEVAL PORTION		3,860.00	SF	0		\$0	\$0	\$0	\$62,841	\$0	\$62,841

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.06.03 AIRLOCK - CONCRETE</u>												
	Subtotal						\$0	\$0	\$0	\$62,841	\$0	\$62,841
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads	29.03%					\$0	\$0	\$0	\$18,243	\$0	\$18,243
	Subtotal Estimate											\$81,083
	Escalation						\$0	\$0	\$0	\$10,833	\$0	\$10,833
	Contingency						\$0	\$0	\$0	\$49,192	\$0	\$49,192
—Total 4.2.06.03 AIRLOCK - CONCRETE						0	\$0	\$0	\$0	\$141,109	\$0	\$141,109
 <u>4.2.06.05 AIRLOCK - METALS</u>												
	STEEL	U.C.per SF			2	\$43.62	87.24	5.538	21	0	0	113.778
	SF COST FROM RETRIEVAL PORTION		3,860.00	SF	7,720	E4	\$336,746	\$21,375	\$81,060	\$0	\$0	\$439,181
	Subtotal						\$336,746	\$21,375	\$81,060	\$0	\$0	\$439,181
	Sales Tax						\$0	\$0	\$4,864	\$0	\$0	\$4,864
	INEEUSubcontractorOverheads	41.93%					\$141,208	\$8,963	\$36,030	\$0	\$0	\$186,201
	Subtotal Estimate											\$630,246
	Escalation						\$63,855	\$4,053	\$16,293	\$0	\$0	\$84,201
	Contingency						\$289,970	\$18,406	\$73,988	\$0	\$0	\$382,364
—Total 4.2.06.05 AIRLOCK - METALS						7,720	\$831,779	\$52,797	\$212,235	\$0	\$0	\$1,096,810
 <u>4.2.06.09 AIRLOCK - FINISHES</u>												
	SF COST FROM RETRIEVAL PORTION	U.C.per SF					0	0	0	3.5	0	3.5
			3,860.00	SF	0		\$0	\$0	\$0	\$13,510	\$0	\$13,510

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

Code	Description	Contractor	Qty	UOM	Hrs	Resource	Labor	Eaument	Material	Subcontractor	Other	TOTAL
4.2.06.09AIRLOCK - FINISHES												
	Subtotal						\$0	\$0	\$0	\$13,510	\$0	\$1 3,510
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$1 3,510
	Escalation						\$0	\$0	\$0	\$1,805	\$0	\$1,805
	Contingency						\$0	\$0	\$0	\$8,196	\$0	\$8,196
—Total 4.2.06.09AIRLOCK * FINISHES					0		\$0	\$0	\$0	\$23,511	\$0	\$23,511

4.2.06.13AIRLOCK - SPECIAL CONSTRUCTION

		<i>U.C. per SF</i>					<i>0</i>	<i>0</i>	<i>30</i>	<i>12.6</i>	<i>0</i>	<i>42.6</i>
	ERECT-AIRLOCK CHARACTERIZATIONSTRUCTURE- FRAME, FABRIC		3,860.00 SF		0		\$0	\$0	\$1 15,800	\$48,636	\$0	\$164,436
		<i>U.C. per SF</i>					<i>0</i>	<i>0</i>	<i>0</i>	<i>140.97</i>	<i>0</i>	<i>140.97</i>
	ERECT- PERSONNEL AIRLOCK STRUCTURE		3,860.00 SF		0		\$0	\$0	\$0	\$544,144	\$0	\$544,144
	Subtotal						\$0	\$0	\$1 15,800	\$592,780	\$0	\$708,580
	Sales Tax						\$0	\$0	\$6,948	\$0	\$0	\$6,948
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$715,528
	Escalation						\$0	\$0	\$16,399	\$79,195	\$0	\$95,595
	Continoency						\$0	\$0	\$74.470	\$359.633	\$0	\$434.103
—Total 4.2.06.13AIRLOCK -SPECIAL CONSTRUCTION					0		\$0	\$0	\$213,617	\$1,031,609	\$0	\$1,245,226

4.2.06.15.01 AIRLOCK - HVAC

	HVAC	<i>U.C. per LBS</i>			<i>0.2</i>	<i>\$36.82</i>	<i>7.364</i>	<i>0.3</i>	<i>2</i>	<i>0</i>	<i>0</i>	<i>9.664</i>
	STAINLESSSTEEL DUCTWORK (based on 3 lbs/sf)		12,750.00 LBS		2,550	CN-SHEE	\$93,891	\$3,825	\$25,500	\$0	\$0	\$123,216

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Melt all with Thermal Desorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.06.15.01 AIRLOCK - HVAC												
	HVAC	U.C. per LBS			0.08	\$36.82	2.946	0.3	0.75	0	0	3.996
	GALVANIZED STEEL DUCTWORK (based on 3 lbs/sf)		12,750.00	LBS	1,020	CN-SHEE	\$37,556	\$3,825	\$9,563	\$0	\$0	\$50,944
Subtotal							\$131,447	\$7,650	\$35,063	\$0	\$0	\$174,160
Sales Tax							\$0	\$0	\$2,104	\$0	\$0	\$2,104
INEEUSubcontractor Overheads							\$59,987	\$3,491	\$16,961	\$0	\$0	\$80,439
Subtotal Estimate												\$256,703
Escalation							\$25,576	\$1,488	\$7,231	\$0	\$0	\$34,295
Contingency							\$116,141	\$6,759	\$32,838	\$0	\$0	\$155,739
—Total 4.2.06.15.01 AIRLOCK - HVAC					3,570		\$333,151	\$19,389	\$94,197	\$0	\$0	\$446,737

4.2.06.15.02 AIRLOCK - FIRE PROTECTION

Memo: Costs are based on contacting a local fire protection vendor that has provided many hours of time as a consultant for the INEEL. This company has also design and installed many fire protection systems at the INEEL, as well as the GEM project. Fire system control costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility.

	AIRLOCK TO CHARACTERIZATION STRUCTURE FIRE SYSTEM CONTROLS	U.C. per SF	4,250.00	SF	0		\$0	\$0	\$0	\$14,450	\$0	\$14,450
	CHARACTERIZATION AIRLOCK STRUCTURE-DRY PIPE FIRE PROTECTION	FP U.C. per SF	4,250.00	SF	0	CN-SPRI	\$0	\$0	\$0	\$15,513	\$0	\$15,513

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Melta//with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.06.15.02 AIRLOCK - FIRE PROTECTION</u>												
Memo: Costs are based on contacting a local fire protection vendor that has provided many hours of time as a consultant for the INEEL. This company has also design and installed many fire protection systems at the INEEL, as well as the GEM project. Fire system control costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility.												
	FP	U.C. per LF					0	0	0	65.3	0	65.3
	CHARACTERIZATION AIRLOCK- FEED MAINS		100.00	LF	0	CN-SPRI	\$0	\$0	\$0	\$6,530	\$0	\$6,530
Subtotal							\$0	\$0	\$0	\$36,493	\$0	\$36,493
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractor Overheads							\$0	\$0	\$0	\$9,243	\$0	\$9,243
Subtotal Estimate												\$45,736
Escalation							\$0	\$0	\$0	\$6,110	\$0	\$6,110
Contingency							\$0	\$0	\$0	\$27,747	\$0	\$27,747
—Total 4.2.06.15.02 AIRLOCK - FIRE PROTECTION					0		\$0	\$0	\$0	\$79,593	\$0	\$79,593

4.2.06.15.03 AIRLOCK - PLANT AIR

Memo: Costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility. Equipment cost for the compressor is by the retrieval project.

	U.C. per SF						0	0	0	2.04	0	2.04
	AIRLOCK TO CHARACTERIZATION-PLANT AIR DIST. SYSTEM		4,250.00	SF	0		\$0	\$0	\$0	\$8,670	\$0	\$8,670
Subtotal							\$0	\$0	\$0	\$8,670	\$0	\$8,670
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$8,670
Escalation							\$0	\$0	\$0	\$1,158	\$0	\$1,158
Contingency							\$0	\$0	\$0	\$5,260	\$0	\$5,260
—Total 4.2.06.15.03 AIRLOCK - PLANT AIR					0		\$0	\$0	\$0	\$15,088	\$0	\$15,088

DETAIL ITEM REPORT

Project Name: *OU 7-70 Staged Interlm Action*
Stage 111 Project Treatment-Meltall with Thermal Disorptlon Option
 Project Location: *INEEL-RWMC*
 Estimate Number: *5974-2 (2b+3aP)*

Client: *S. L. Austad*
 Prepared By: *R.D. ADAMS / S.N. WASLEY*
 Estimate Type: *Project Support*

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.06.15.04 AIRLOCK - BREATHINGAIR												
Memo: Costs are based on the GEM Project design, assume the same type system and coverage will be required for this facility. No costs for the breathing air compressor have been included, assume provided to the project by the BBWI equipment pool at no cost to this project.												
	AIRLOCK TO CHARACTERIZATION-BREATHINGAIR DIST. SYSTEM		4,250.00		0		0 \$0	0 \$0	0 \$0	172 \$47,600	0 \$0	112 \$47,600
Subtotal							\$0	\$0	\$0	\$47,600	\$0	\$47,600
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractorOverheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$47,600
Escalation							\$0	\$0	\$0	\$6,359	\$0	\$6,359
Contingency							\$0	\$0	\$0	\$28,878	\$0	\$28,878
— Total 4.2.06.15.04 AIRLOCK - BREATHINGAIR					a		\$0	\$0	\$0	\$82,838	\$0	\$82,838

4.2.06.16.01 AIRLOCK - GENERAL FACILITIES ELECTRICAL

Memo: Costs are based on the GEM project calculated square footage.

	FACILITY RACEWAYS	U.C. per SF	4,250.00	SF	0		0 \$0	0 \$0	0 \$0	17 \$72,250	0 \$0	17 \$72,250
	FACILITY WIRE & CABLE	U.C. per SF	4,250.00	SF	0		0 \$0	0 \$0	0 \$0	6.36 \$27,030	0 \$0	6.36 \$27,030
	FACILITY LIGHTING	U.C. per SF	4,250.00	SF	0		0 \$0	0 \$0	0 \$0	8.75 \$37,188	0 \$0	8.75 \$37,188

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorptlon Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Eaubment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>4.2.06.16.03 AIRLOCK • MONITORINGAND CONTROLS</u>												
Memo: Unit costs are based on the GEM project calculated square footage. This unit cost also includedHVAC controls.												
		<i>U.C. per SF</i>					0	0	0	1.45	0	1.45
	MONITORING AND CONTROLS-RACEWAYS (BASED ON THE		4,250.00	SF	0		\$0	\$0	\$0	\$6,163	\$0	\$6,163
	GEM PROJECTSF)											
Memo: Unit costs were adjusted down by 50% from the GEM project due to the economy of scale.												
Subtotal							\$0	\$0	\$0	\$37,613	\$0	\$37,613
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$37,613
Escalation							\$0	\$0	\$0	\$5,025	\$0	\$5,025
Contingency							\$0	\$0	\$0	\$22,819	\$0	\$22,819
— Total 4.2.06.16.03 AIRLOCK • MONITORING AND CONTROLS					0		\$0	\$0	\$0	\$65,457	\$0	\$65,457
 <u>4.2.06.16.04 AIRLOCK • CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION</u>												
		<i>U.C. per EA</i>					0	0	0	20185	0	20185
	CRITICALITY SYSTEM INSTALLATION		1.00	EA	0		\$0	\$0	\$0	\$20,185	\$0	\$20,185
Memo: Based on the GEM project installationcosts for criticality equipment.												
		<i>U.C. per LS</i>					0	0	0	16349	0	16349
	RADIOLOGICAL MONITORING EQUIPMENT INSTALLATION		1.00	LS	0		\$0	\$0	\$0	\$16,349	\$0	\$16,349
Subtotal							\$0	\$0	\$0	\$36,534	\$0	\$36,534
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$36,534
Escalation							\$0	\$0	\$0	\$4,881	\$0	\$4,881
Continaencv							\$0	\$0	\$0	\$22,165	\$0	\$22,165
— Total 4.2.06.16.04 AIRLOCK • CRITICALITY & RAD MONITORING SYSTEMS INSTALLATION					0		\$0	\$0	\$0	\$63,580	\$0	\$63,580

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
4.2.06.16.05 AIRLOCK • CCTV MONITORING SYSTEM												
Memo: Costs are based on the GEM project calculated square footage.												
		<i>U.C. per SF</i>					0	0	0	1.36	0	1.36
	CCTV MONITORING SYSTEM-INSTALLATION LABOR		4,250.00	SF	0		\$0	\$0	\$0	\$5,780	\$0	\$5,780
Memo: Unit costs are based on the GEM project. Camera equipment costs are included in the procurement WBS												
Subtotal							\$0	\$0	\$0	\$5,780	\$0	\$5,780
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$5,700
Escalation							\$0	\$0	\$0	\$772	\$0	\$772
Contingency							\$0	\$0	\$0	\$3,507	\$0	\$3,507
— Total 4.2.06.16.05 AIRLOCK • CCTV MONITORING SYSTEM					0		\$0	\$0	\$0	\$10,059	\$0	\$10,059

4.2.07 OFFICE/RESTROOM AREAS

Memo: Office area costs are based on historical costs of three office buildings constructed at the INEEL. The three buildings are CFA Training Facility (5000 sf), TRA 678 office building (5000 sf), and ICPP Ops Training Facility CPP 1651. Estimate file contains historical back-up information.

OFFICE AREAS		<i>U.C. per SF</i>	1,400.00	SF	0		\$0	\$0	\$0	178.13	0	178.13
							\$0	\$0	\$0	\$249,382	\$0	\$249,382
RESTROOM AREA 30 X 60		<i>U.C. per SF</i>	1,800.00	SF	0		\$0	\$0	\$0	143.73	0	143.73
							\$0	\$0	\$0	\$258,714	\$0	\$258,714
Memo: Unit costs for this pre-engineered metal building is based on historical cost of a facility erected at the RWMC area in 1996. the RWMC Maintenance Facility. The reflected unit cost includes slab on grade, building structure, mechanical, and electrical. The estimate file contains the historical cost data sheet.												
WATER CLOSETS	PIPE	<i>U.C. per EA</i>	8.00	EA	0	CN-PIPE	0	0	0	1250	0	1250
							\$0	\$0	\$0	\$10,000	\$0	\$10,000
URINALS	PIPE	<i>U.C. per EA</i>	3.00	EA	0	CN-PIPE	0	0	0	750	0	750
							\$0	\$0	\$0	\$2,250	\$0	\$2,250
LAVATORIES	PIPE	<i>U.C. per EA</i>	5.00	EA	0	CN-PIPE	0	0	0	650	0	650
							\$0	\$0	\$0	\$3,250	\$0	\$3,250
SHOWERS	PIPE	<i>U.C. per EA</i>	8.00	EA	0	CN-PIPE	0	0	0	1000	0	1000
							\$0	\$0	\$0	\$8,000	\$0	\$8,000

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

Code	Description	Contractor	Qty	UOM	Hrs	Resource	Labor	Equipment	Material	Subcontractor	Other	TOTAL
4.2.07 OFFICE/RESTROOM AREAS												
Memo: Office area costs are based on historical costs of three office buildings constructed at the INEEL. The three buildings are CFA Training Facility (5000 sf), TRA 678 office building (5000 sf), and ICPP Ops Training Facility CPP 1651. Estimate file contains historical back-up information.												
	WATER COOLER	PIPE	U.C. per EA									
			1.00	EA	0	CN-PIPE	\$0	\$0	\$0	\$990	\$0	\$990
	LOCKERS	PIPE	U.C. per EA									
			80.00	EA	0	CN-PIPE	\$0	\$0	\$0	\$2,400	\$0	\$2,400
Subtotal							\$0	\$0	\$0	\$534,986	\$0	\$534,986
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEV Subcontractor Overheads							\$0	\$0	\$0	\$12,935	\$0	\$12,935
Subtotal Estimate												\$547,921
Escalation							\$0	\$0	\$0	\$73,202	\$0	\$73,202
Contingency							\$0	\$0	\$0	\$332,418	\$0	\$332,418
--Total 4.2.07 OFFICE/RESTROOM AREAS					0		\$0	\$0	\$0	\$953,541	\$0	\$953,541

6.1 TESTING AND TURNOVER PLANNING

Memo: Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.

	TESTING & TURNOVER PLANNING	U.C. per \$	142,153,165.00	\$	0		\$0	\$0	\$0	\$0	\$284,306	\$284,306
Subtotal							\$0	\$0	\$0	\$0	\$284,306	\$284,306
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEV Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$284,306
Escalation							\$0	\$0	\$0	\$0	\$45,716	\$45,716
Contingency							\$0	\$0	\$0	\$0	\$278,523	\$278,523
--Total 6.1 TESTING AND TURNOVER PLANNING					0		\$0	\$0	\$0	\$0	\$608,546	\$608,546

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>DescriDtion</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>EquiDment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
6.2.01 S. O. TESTING												
	S. O. TESTING					U.C. par \$						
			142,153,165.00	\$	0		\$0	\$0	\$0	\$0	0.03	0.03
											\$4,264,595	\$4,264,595
Subtotal							\$0	\$0	\$0	\$0	\$4,264,595	\$4,264,595
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEUSubcontractor Overheads							0.00%	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$4,264,595
Escalation							\$0	\$0	\$0	\$0	\$685,747	\$685,747
Continaency							\$0	\$0	\$0	\$0	\$4,177,844	\$4,177,844
—Total 6.2.01 S. O. TESTING					0		\$0	\$0	\$0	\$0	\$9,128,185	\$9,128,185

6.2.02 TRIAL BURN

BURN TEST - SAMPLE CREW	U.C. per LOT	1.00	LOT	0			\$0	\$0	\$0	200000	0	200000
										\$200,000	\$0	\$200,000
BURN TEST - OPERATORS BBWI-A	U.C. per LOT	1.00	LOT	4725	\$52.05		245940.75	0	0	0	0	245940.75
				4,725	T21		\$245,941	\$0	\$0	\$0	\$0	\$245,941
BURN TEST - FUEL	U.C. per LOT	1.00	LOT	0			\$0	\$0	100000	0	0	100000
									\$100,000	\$0	\$0	\$100,000
PARTICULATES (IN LIQUIDS)	U.C. per TESTS	15.00	TESTS	0			800	0	0	0	0	800
							\$12,000	\$0	\$0	\$0	\$0	\$12,000
DENSITY	U.C. per TESTS	6.00	TESTS	0			800	0	0	0	0	800
							\$4,800	\$0	\$0	\$0	\$0	\$4,800
HEAT OF COMBUSTION	U.C. per TESTS	3.00	TESTS	0			3000	0	0	0	0	3000
							\$9,000	\$0	\$0	\$0	\$0	\$9,000
TOTAL CHLORINE	U.C. par TESTS	6.00	TESTS	0			2000	0	0	0	0	2000
							\$12,000	\$0	\$0	\$0	\$0	\$12,000

DETAIL ITEM REPORT

Project Name: ***OU 7-70 Staged Interim Action
Stage III Project Treatment-Meifall with Thermal Disorption Option***
Project Location: ***INEEL-RWMC***
Estimate Number: ***5974-2 (2b+3aP)***

Client: **S. L. Austad**
Prepared By: **R.D. ADAMS / S.N. WASLEY**
Estimate Type: **Project Support**

	<u>Description</u>	<u>Contractg</u>	<u>Qtyv</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
<u>6.2.02 TRIAL BURN</u>												
	TOTAL ORGANIC HALOGENS	<i>U.C. per TESTS</i>	6.00	TESTS	<i>0</i>		<i>3000</i> \$18,000	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>3000</i> \$18,000
	VISCOSITY	<i>U.C. per TESTS</i>	6.00	TESTS	<i>0</i>		<i>800</i> \$4,800	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>800</i> \$4,800
	ICP METALS	<i>U.C. per TESTS</i>	18.00	TESTS	<i>0</i>		<i>9000</i> \$162,000	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>9000</i> \$162,000
	MERCURY	<i>U.C. per TESTS</i>	18.00	TESTS	<i>0</i>		<i>3000</i> \$54,000	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>3000</i> \$54,000
	TSS	<i>U.C.per TESTS</i>	12.00	TESTS	<i>0</i>		<i>1000</i> \$12,000	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>1000</i> \$12,000
	TDS	<i>U.C. per TESTS</i>	12.00	TESTS	<i>0</i>		<i>1000</i> \$12,000	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>1000</i> \$12,000
	TOC	<i>U.C. per TESTS</i>	12.00	TESTS	<i>0</i>		<i>2000</i> \$24,000	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>2000</i> \$24,000
	pH	<i>U.C.per TESTS</i>	12.00	TESTS	<i>0</i>		<i>1000</i> \$12,000	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>1000</i> \$12,000
	HALOGENS	<i>U.C.per TESTS</i>	12.00	TESTS	<i>0</i>		<i>2000</i> \$24,000	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>2000</i> \$24,000
	PCB	<i>U.C. per TESTS</i>	18.00	TESTS	<i>0</i>		<i>5000</i> \$90,000	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>5000</i> \$90,000
	TCLP	<i>U.C.per TESTS</i>	18.00	TESTS	<i>0</i>		<i>30000</i> \$540,000	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>30000</i> \$540,000
	DIOXINS AND FURANS	<i>U.C.per TESTS</i>	12.00	TESTS	<i>0</i>		<i>5000</i> \$60,000	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>5000</i> \$60,000
	PARTICULATES(IN GASES)	<i>U.C.per TESTS</i>	24.00	TESTS	<i>0</i>		<i>1000</i> \$24,000	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>0</i> \$0	<i>1000</i> \$24,000

DETAIL ITEM REPORT

Project Name: **OU 7-10 Staged Interim Action**
Stage III Project Treatment-Metall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
6.2.02 TRIAL BURN												
	HCL AND CL2		36.00	TESTS	0		3000 \$108,000	0 \$0	0 \$0	0 \$0	0 \$0	3000 \$108,000
	VOLATILE ORGANICS		12.00	TESTS	0		10000 \$120,000	0 \$0	0 \$0	0 \$0	0 \$0	10000 \$120,000
	SEMI-VOLATILE ORGANICS		12.00	TESTS	0		10000 \$120,000	0 \$0	0 \$0	0 \$0	0 \$0	10000 \$120,000
	ICP METALS		36.00	TESTS	0		9000 \$324,000	0 \$0	0 \$0	0 \$0	0 \$0	9000 \$324,000
	MERCURY		36.00	TESTS	0		3000 \$108,000	0 \$0	0 \$0	0 \$0	0 \$0	3000 \$108,000
	PCB		9.00	TESTS	0		5000 \$45,000	0 \$0	0 \$0	0 \$0	0 \$0	5000 \$45,000
	CONTINUOUS CO & O2 MONITORING		3.00	TESTS	0		10000 \$30,000	0 \$0	0 \$0	0 \$0	0 \$0	10000 \$30,000
	EPA COMPREHENSIVE TEST REPORT		1.00	LOT	2700 2,700	\$79.75 E08	215323.13 \$215,323	0 \$0	0 \$0	0 \$0	0 \$0	215323.13 \$215,323
	RCRA TRIAL BURN/DRE TEST REPORT		1.00	LOT	1350 1,350	\$79.75 E08	107661.57 \$107,662	0 \$0	0 \$0	0 \$0	0 \$0	107661.57 \$107,662
	BURN TEST SAMPLE VALIDATION		351.00	EA	0	E08	0 \$0	0 \$0	0 \$0	45 \$15,795	0 \$0	45 \$15,795
	WASTE FEED ANALYSIS SAMPLES		20.00	EA	0	E08	0 \$0	0 \$0	0 \$0	15000 \$300,000	0 \$0	15000 \$300,000
	WASTE FEED ANALYSIS SAMPLE VALIDATION		120.00	EA	0	E08	0 \$0	0 \$0	0 \$0	45 \$5,400	0 \$0	45 \$5,400
	NEPA SUPPORT		1.00	LOT	750 750	\$79.75 E08	59811.98 \$59,812	0 \$0	0 \$0	0 \$0	0 \$0	59811.98 \$59,812

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
6.2.02 TRIAL BURN												
	PUBLIC MEETINGS				450	\$79.75	35887.19	0	0	0	0	35887.79
			1.00	LOT	450	EO8	\$35,887	\$0	\$0	\$0	\$0	535.887
	REPRODUCTIONAND TECH EDITOR COSTS						0	0	0	320000	0	320000
			1.00	LOT			\$0	\$0	\$0	\$320,000	\$0	\$320,000
<hr/>												
	Subtotal						\$2,594,225	\$0	\$100,000	\$841,195	\$0	\$3,535,420
	Sales Tax						\$0	\$0	\$6,000	\$0	\$0	\$6,000
	INEEUSubcontractor Overheads	0.79%					\$28,037	\$0	\$0	\$0	\$0	\$28,037
<hr/>												
	Subtotal Estimate						\$433,460	\$0	\$17,522	\$139,050	\$0	\$3,569,457
	Escalation						\$2,578,878	\$0	\$104,246	\$827.278	\$0	\$590,031
	Contingency											\$3,510,402
<hr/>												
--Total 6.2.02TRIAL BURN					9,975		\$5,634,600	\$0	\$227,768	\$1,807,522	\$0	\$7,669,890

6.3 ORR SUPPORT

Memo: Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.

	ORR SUPPORT						0	0	0	0	0.002	0.002
			142,153,165.00\$		0		\$0	\$0	\$0	\$0	\$312,737	\$312,737
<hr/>												
	Subtotal						\$0	\$0	\$0	\$0	\$312,737	\$312,737
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
<hr/>												
	Subtotal Estimate						\$0	\$0	\$0	\$0	\$50,288	\$50,288
	Escalation						\$0	\$0	\$0	\$0	\$306,375	\$306,375
	Contingency											
<hr/>												
--Total 6.3 ORR SUPPORT					0		\$0	\$0	\$0	\$0	\$669,400	\$669,400

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Melt all with Thermal Desorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Rate</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
5.4 FACILITY ACCEPTANCE REVIEW												
<i>Memo: Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.</i>												
	FACILITY ACCEPTANCE REVIEW			U.C. per \$								
			142,153,165.00	\$	0		\$0	\$0	\$0	\$0	\$213,230	\$213,230
Subtotal							\$0	\$0	\$0	\$0	\$213,230	\$213,230
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$213,230
Escalation							\$0	\$0	\$0	\$0	\$34,287	\$34,287
Continuency							\$0	\$0	\$0	\$0	\$208,892	\$208,892
—Total 6.4 FACILITY ACCEPTANCE REVIEW					0		\$0	\$0	\$0	\$0	\$456,409	\$456,409

5.5 RADIOLOGICAL CONTROL SUPPORT

Memo: Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.

	RAD CONTROL SUPPORT			U.C. per \$								
			142,153,165.00	\$	0		\$0	\$0	\$0	\$0	\$156,368	\$156,368
Subtotal							\$0	\$0	\$0	\$0	\$156,368	\$156,368
Sales Tax							\$0	\$0	\$0	\$0	\$0	\$0
INEEL/Subcontractor Overheads							\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate												\$156,368
Escalation							\$0	\$0	\$0	\$0	\$25,144	\$25,144
Continuency							\$0	\$0	\$0	\$0	\$153,188	\$153,188
—Total 6.5 RADIOLOGICAL CONTROL SUPPORT					0		\$0	\$0	\$0	\$0	\$334,700	\$334,700

6.6 OPERATOR TRAINING

Memo: Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.

	OPERATOR TRAINING			U.C. per \$								
			142,153,165.00	\$	0		\$0	\$0	\$0	\$0	\$2,843,063	\$2,843,063

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
6.6 OPERATOR TRAINING												
<i>Memo: Percentage allowances derived by the project team on the CSIX/TRUE Grout Feasibility Study, produced by Washington Group International, December, 2000.</i>												
	Subtotal						\$0	\$0	\$0	\$0	\$2,843,063	\$2,843,063
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$2,843,063
	Escalation						\$0	\$0	\$0	\$0	\$457,165	\$457,165
	Contingency						\$0	\$0	\$0	\$0	\$2,785,229	\$2,785,229
--Total 6.6 OPERATOR TRAINING					0		\$0	\$0	\$0	\$0	\$6,085,457	\$6,085,457

6.7 OPERATING PROCEDURES

Memo: Percentage allowances derived by the project team on the CSIX/TRUE Grout Feasibility Study, produced by Washington Group International, December, 2000.

	OPERATING PROCEDURES	U.C. per 5 142,153,165.00	\$	0		0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0.004 \$625,474	0.004 \$625,474
	Subtotal					\$0	\$0	\$0	\$0	\$0	\$625,474	\$625,474
	Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractorOverheads	0.00%				\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$625,474
	Escalation					\$0	\$0	\$0	\$0	\$0	\$100,576	\$100,576
	Contingency					\$0	\$0	\$0	\$0	\$0	\$612,750	\$612,750
--Total 6.7 OPERATING PROCEDURES					0	\$0	\$0	\$0	\$0	\$0	\$1,338,801	\$1,338,801

6.8 START-UP COORDINATION

Memo: Percentage allowances derived by the project team on the CSIX/TRUE Grout Feasibility Study, produced by Washington Group International, December, 2000.

	STARTUP COORDINATION	U.C. per 5 142,153,165.00	\$	0		0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0.001 \$184,799	0.001 \$184,799
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DETAIL ITEM REPORT

Project Name: *OU 7-70 Staged Interim Action*
Stage III Project Treatment-Melt a//with Thermal Desorption Option
 Project Location: *INEEL-RWMC*
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Austad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: *Project Support*

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOTAL</u>
6.8 START-UP COORDINATION												
Memo: <i>Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.</i>												
	Subtotal							\$0	\$0	\$0	\$0	\$184,799
	Sales Tax							\$0	\$0	\$0	\$0	\$0
	INEEL/Subcontractor Overheads		0.00%					\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate							\$0	\$0	\$0	\$0	\$184,799
	Escalation							\$0	\$0	\$0	\$29,716	\$29,716
	Contingency							\$0	\$0	\$0	\$181,040	\$181,040
—Total 6.8 START-UP COORDINATION					0			\$0	\$0	\$0	\$395,555	\$395,555

6.9 SPARES

Memo: *In support of start-up and testing only. Percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000.*

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7.0 PROJECT MANAGEMENT

Memo: *Percentage of construction and procurement costs based on detailed input from the project team for the LCB effort, OU 7-10 PIT-9 STAGE III - LCB, estimate # 5974-1. Also considered were percentage allowances derived by the project team on the CSIX/TRU Grout Feasibility Study, produced by Washington Group International, December, 2000. Where large discrepancies occurred, an average of the two percentages was applied here.*

	PROJECT MANAGEMENT SUPPORT	U.C. per \$	142,153,165.00	\$	0			0	0	0	0	0.09	0.09
								\$0	\$0	\$0	\$0	\$***,***	\$12,793,785

DETAIL ITEM REPORT

Project Name: **OU 7-70 Staged Interim Action**
Stage III Project Treatment-Meltall with Thermal Disorption Option
 Project Location: **INEEL-RWMC**
 Estimate Number: **5974-2 (2b+3aP)**

Client: **S. L. Aostad**
 Prepared By: **R.D. ADAMS / S.N. WASLEY**
 Estimate Type: **Project Support**

<u>Code</u>	<u>Description</u>	<u>Contractor</u>	<u>Qty</u>	<u>UOM</u>	<u>Hrs</u>	<u>Resource</u>	<u>Labor</u>	<u>Equipment</u>	<u>Material</u>	<u>Subcontractor</u>	<u>Other</u>	<u>TOT-L</u>
7.0 PROJECT MANAGEMENT												
Memo: Percentage of construction and procurement costs based on detailed input from the project team for the LCB effort, OU 7-10 PIT-9 STAGE III - LCB , estimate # 5974-1. Also considered were percentage allowances derived by the project team on the CSIX/TRUE Grout Feasibility Study, produced by Washington Group International, December, 2000. Where large discrepancies occurred, an average of the two percentages was applied here.												
	Subtotal						\$0	\$0	\$0	\$0	\$12,793,785	\$12,793,785
	Sales Tax						\$0	\$0	\$0	\$0	\$0	\$0
	INEEUSubcontractor Overheads	0.00%					\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal Estimate											\$12,793,785
	Escalation						\$0	\$0	\$0	\$0	\$1,368,935	\$1,368,935
	Contingency						\$0	\$0	\$0	\$0	\$6,867,252	\$6,867,252
—Total 7.0 PROJECT MANAGEMENT					0		\$0	\$0	\$0	\$0	\$21,029,972	\$21,029,972

Subtotal	MELT ALL WITH TDF		\$24,086,218	\$2,257,085	\$87,965,864	\$33,831,359	\$96,236,870	\$**,**,*
Sales Tax			\$0	\$0	\$5,277,952	\$0	\$0	\$5,277,952
INEEUSubcontractor Overheads			\$4,179,947	\$715,044	\$3,488,549	\$2,660,170	\$0	\$11,043,711
Subtotal Estimate								\$**,**,*
Escalation			\$3,859,485	\$397,077	\$8,901,070	\$3,608,625	\$9,368,523	\$26,134,779
Contingency			\$18,136,761	\$1,803,160	\$64,329,596	\$23,764,495	\$68,391,368	\$**,**,*
Total MELT ALL WITH TDF								
		325,440	\$50,262,411	\$5,172,366	\$169,963,031	\$63,864,649	\$173,996,761	\$463,259,218